

ADiL

BENEFITING

CHINA

DAIRYING.

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**“for Primary Industry Council/ Kellogg
Rural Leadership Programme”.**

CONTENTS.

	Page
Executive Summary	1
1.Introduction	2
1.1 Overview.....	2
1.2 Limitations.....	3
1.3 Acknowledgements	3
2.0 Background	4
2.1. General.....	4.
2.2 Economy.....	4.
2.3 Dynamics and mechanisms for growth.....	5
2.4 Agriculture sector generally.....	7
2.5 Dairy industry specifically.....	8.
A Household Farms.....	9
B Cooperative Model Farms.....	9
C Corporate model farms.....	9
2.6 Challenges to the dairy industry.....	10
3.0 Why China	11
4.0 China challenges-ADiL solutions	12
4.1 Intergration and optimisation of resources.....	12
4.2 Milk quality.....	12
4.3 Business Planning.....	13
4.4 Strategic Planning input.....	13
4.5 Capital Resource sourcing.....	13
5.0 ADiL's Outcomes	14
6.0 Lessons learnt	15
.Appendix.....	18
Abbreviation.....	23
References.....	24

EXECUTIVE SUMMARY

This report identifies the opportunity for dairy farm development work in China, which led to the formation of the company Agricultural Developments International Ltd (ADiL's). The report summarizes the challenges and influences effecting ADiL in its quest to find a suitable starting point for agriculture development in China.

The report covers a number of the influences including cultural beliefs and practices, macro and micro economic effects, central and local government drivers, and social and environmental outcomes suitable for 'the people'.

ADiL travelled to many provinces in China, to evaluate farms and dairy business model. ADiL was courted by many hopeful prospective entities. The dairy industry and farms ADiL visited, had been driven by the ability to get government funding to facilitate more growth. However, new thinking involves making their existing units profitable first, before re-leveraging their resources.

ADiL required the chosen business partner and the resulting business relationship, to be able to act as a platform for NZ agri-tech companies and to enable ADiL to use a two staged business model that mitigated risk to both parties. The first stage would involve profit and information sharing, aimed at increasing understanding and de-risking growth. The second stage, would involve evaluating capital inputs.

ADiL has chosen Guangxi State Farm Bureau (GSFB) as its starting point in China as it meets ADiL's criteria for sustainable and prolonged growth. GSFB has dairy Buffalo and Embryo Transfer (ET) projects that are in their infancy, but have huge opportunity for growth.

The report covers lessons learnt and insights gained along the journey to date. The author is sure that there will be plenty more to come.

1. INTRODUCTION

1.1 Overview

Agricultural Developments International Limited (ADiL) was formed specifically for the China dairy development market. The four founding Directors met through their common interest in business in China. All of the individual directors had been exposed to the plight of dairy farming businesses in China and recognised that there was a window of opportunity to help, before other countries filled the need.

The facts facing ADiL at the outset was that no New Zealand (NZ) broad based business had previously been established successfully in China. A number had failed and a number of import/export, manufacturing, aid and consultancy relationships exist from which we can derive some experiences.

This report is intended to give the reader an understanding of some of the key factors that influenced (ADiL) as it evaluated a sustainable agribusiness in China. These factors take into account, economic, social, environmental, historical and cultural influences, as perceived by ADiL.

Two ADiL Directors are resident in China, with one being a national Chinese with NZ Residency, the other a Kiwi with considerable international corporate dairying experience. The two remaining NZ Directors have a combined 45 years of involvement and experience in dairy, sheep and beef, deer and forage industries in NZ.

As ADiL ventured into the Chinese agriculture market it needed to:

1. Comprehend the scale of opportunities from the China dairy market, and then define ADiL's niche within that market.
2. Work within the Chinese Central Government's five key agricultural objectives for economic, social, environmental and food production in China. Refer to appendix 2.
3. Create the appropriate corporate structure, workable business models, company culture, and level of understanding to bridge the gap between the historical way we New Zealander's and Chinese have carried out business.
4. Be mindful of the traits required, namely, patience, tenacity, open mindedness and a high-energy approach to the task.

ADiL's initial objectives in going to China were to develop a low risk entry into the dairy farming industry, using it's knowledge of profit sharing models to accommodate both sides needs. As our understanding and exposure to the market grew, ADiL favoured using a staged approach to growth.

1. Stage one (the Honeymoon Phase); ADiL would share knowledge and some risk, while using profit sharing models to derive income and build the ADiL brand. During this stage ADiL would be looking to create a platform for NZ agricultural and technological companies (agri-tech companies) to enter the market.
2. Stage two; With increasing knowledge, expanding networks and having further developed the relationships based on trust, ADiL would look to leverage into capital development projects.

Currently ADiL is mid-way through Stage one, with a working agreement with Guangxi State Farm Bureau (GSFB) and has two full time Kiwi employees on the ground there. One is focused on improving productivity of the dairy units and the second employee/director will be evaluating the existing business units of; Buffalo milk production, forage farm production, and the viability of the new business units of beef production and an Embryo Transplant (ET) centre. A third, part-time employee/director, will be focused on developing a manufacturing and marketing company to facilitate extracting value for the GSFB's products.

The scope of the report is to outline the key influences, both from macro and micro economic effects, plus the social and environmental forces/perceptions that impacted on ADiL in getting to this current point in time. It will outline the reasons why GSFB was chosen as its initial cooperative partner, instead of the many other candidates. Also it will outline the lessons ADiL has learnt along the way. It is hoped that other entrepreneurial entities looking to enter the Chinese market, can put to good use this information and gain confidence from understanding some of the challenges posed from operating in this environment.

1.2 Limitations

The limitations of this report included:

1. Knowledge, information and market analysis has been collected up to the writing of this report, however the Chinese agricultural market is evolving and changing at a rapid rate.
2. ADiL's business exposure to the Chinese agricultural market is limited to the combined knowledge of the four Directors from approximately 20 trips to China, and the knowledge gathered from ADiL's networks.
3. China is an immense country made up of many provinces and cultures, that all have their own identity and ways of transacting business, so it is not practical to stereotype 'the way of the people'. With this diversity the observations and generalisations made in this report are just that.
4. Collecting and referencing data showed up major anomalies in the consistency of the figures quoted from different sources for the same event. So in the interests of proving a point, an average or the most consistent figure has been used. An example is the number of dairy cows in China ranges from 6.5 to 10 million.

ADiL's expectation is that the companies perception and knowledge will evolve over time as more points of interface with Chinese associates at different levels of business develop and as the agricultural industry matures as a whole. It goes without question that with full time employees working in China, ADiL's creditability with the Chinese and exposure to more opportunities will take a quantum leap forward.

1.3 Acknowledgements

I would like to acknowledge;

My three fellow ADiL directors, Weijun Qiu, Peter Bailey and Berwick Settle for their devoted input into making ADiL workable in China and also for their understanding and patience for my short comings.

Adam Zhou who has played a part in my understanding of Chinese culture.

Robyn Skelton for her valuable time and patience.

2.0 BACKGROUND

2.1 General

China's cultural history is reported to go back 5,000 years. It has a population of 1.3 billion people officially, with the expectation that there's another 100 million transient people not recorded.

China has had an increase in population of 8 % over the last ten years, with the expectation of 5 % increase over the next 10 years (a direct result of the one child/family policy). Refer to Appendix 4

An increase in Urban Drift has led to 57 % of the population living in rural communities today, as compared to 71% ten years ago. In ten years time the expectation is that only 50 % of the population will live rurally. An effect of this is that 120 million more people will be living in urban areas in 10 years time. This creates many issues for the Chinese government but it is also the fundamental driver for China's manufacturing competitiveness. (Mr China)

China has a culture where enterprise is encouraged at all levels of society and cooperation with foreign enterprises, is supported at all levels, so long as this cooperation fits with central government objectives. Refer to Appendix 2.

The Chinese people are motivated to perform in any venture, so long as the whole journey will show them off in a good light to 'the people'. If benefit can come to individuals through the 'side or back door' (as opposed to the front door), then high levels of motivation are achievable.

2.2 Economy

China's Gross Domestic Product (GDP) has grown at an average rate of 9.5% p.a., and its foreign trade by 15 % p.a. over the last 25 years. Refer to appendix 1.

To put this into perspective, if the United States (US) economy had grown at the same rate, the economy would now be its current size plus twice Japan's economy. Since 2001 when officials signed the World Trade Accession Accord it has been the only large economy to grow rapidly in the world.

China's GDP is 1.9 trillion in 2005 making it greater than Italy. With an expected GDP growth of 10%, inflation of 2.5% and a currency appreciation of 2-4% p.a. These results should see China's economy pass France and UK by the end of 2006, making it the fourth largest economy in the world. These growth figures are unprecedented for a large economy. (Credit Suisse, October report)

China makes only 1/20th of the world produce, but because of its relatively low domestic consumption and its world position as the 'new factory in an old industrial town', it can now dictate markets, and influence the way global business is done. Consumption is massive, with estimates that China uses; 40% of the world's concrete, 33% of the world's iron ore and coal, 25% of the world's aluminium and steel, and 7% of the world's oil. This demand is to facilitate unprecedented infrastructure additions and expand manufacturing capabilities. In the last decade highways (many of them private) have been developed all over China to enable produce, both fresh, for domestic consumption and containerised, for export, to be moved quickly and efficiently around the country. (China Inc.)

NZ has little influence on China's general economy, but a very good image within agriculture and especially the dairying industry, on two counts. Firstly, through its image as a beautiful, clean and green country that is reliant on its primary industry. The second image is that our primary products imported into China are first class and often carry a premium. Many people ADiL met had been exposed to NZ, either through first hand experience or through reports of our country.

Of the NZ\$1.6 billion of exports to China, they were heavily weighted to primary products: dairy, wood based, meat and fisheries. It should be noted that imports from China at NZ\$3.0 billion, are heavily weighted to value added manufactured products such as electronics, textiles and clothing.

NZ's reputation for producing export-quality agricultural products efficiently is accepted in China. On balance though, NZ is a long way behind many other agricultural exporting nations with their presence in China, as there has not been a concerted NZ government approach to the issue. There is currently a drive on to achieve this as the respective governments look to establish a Free Trade Agreement. This is helped by the fact NZ was the first country to accept China's nomination onto the World Trade Organisation (WTO) and that NZ has contributed over many years to agricultural aid programmes.

2.3 Dynamics and Mechanisms for Growth

Since China's reform process commenced in the early 1980's, the government has facilitated, wittingly and unwittingly, to create a market led economy, and allowed its people to benefit from privatising state assets and State Owned Enterprises (SOE's). This privatisation process has been far from seamless, as managers or government officials were encouraged by other local officials to get control of these assets and endeavour to make them profitable. To do this many companies in the eighties and nineties formed Joint Ventures (JV's) with strategic partners from the west. A high fallout rate occurred in these JV's, as the goals of the two sides were invariably quite different. The last decade has seen a shift away from JV's to Wholly Owned Foreign Entities (WOFE). A WOFE has similar taxation and compliance issues/costs but has the major benefit of control.

Research has found that China is growing because foreigners keep feeding capital into the economy. Since economic liberalisation (in the early 1980's) this has summed to half a trillion dollars which has facilitated one third of China's industrial production. In 2003 alone, exports and imports by foreign companies operating in China rose by 40 %. Now more than half of China's trade is controlled by foreign companies, but these companies are forced to channel production into exports. Again half of all exports are from the processing trade, which is where products are assembled and packaged from imported components. (Mr China)

Another one third of the China's industrial production capacity has been developed through government assisted projects, either directly, as the legacy of the SOE era, or indirectly, through new government initiated projects.

The last one third of China's industrial production is the phenomenon of China. This is the private sector input into the economy through local entrepreneurship. Here families have leveraged their resources to accumulate and develop their industrial capabilities. This phenomenon would be impossible to achieve in the western world simply because we have strict Property Right Laws. This phenomenon started with

Chinese families, from the early eighties, when the government relinquished its role as the ‘Universal Provider’. This, and other reforms were started, which motivated ingenious schemes to raise start-up capital.

An example of this is, Wenzhou City which was extremely poor and deficient of infra structure as government support over the previous thirty years had been almost non existent at \$1/ head/ year. In some villages within the district, nine out of ten households went into business and within five short years 80,000 families had set up some form of industrial operation. The law still prohibited businesses from growing large and employing more than five people at that time. Even so, by 1986, the villages of Wenzhou were employing more than 300,000 workers and facilitated the start of the millions of rural migrants searching for urban work. Within this city a group of 3,000 family companies were making cigarette lighters, intense competition forced a shake down, resulting in the smaller companies making parts for the larger companies to assemble. This was a start of the Wenzhou network, where 700 companies act as an unofficial entity. This specialisation drove down costs and allowed them to enter the world market. This area now manufactures 70% of the world’s cigarette lighters and has large shoe manufacturing capability, which in 2002 exported 10 Billion USD. There are a number of competitive networks (or clusters) in China that are highly successful due to their lack of bureaucratic overheads and speed to adopt change. The irony is these networks were not taken seriously by foreign executives as they don’t conform to any globally competitive organisation structure. These underestimated networks have taken market share up to 50% of watches, socks, shoes, toys, pens and Christmas decorations.

Virtually all the funding to start these businesses was leveraged through ingenious corporate structures. An example of one of these was the “Hang on Household” Enterprise. Here the family enterprise morphed into an off-shoot of a SOE through an arrangement with the company management. The household enterprise would cloak itself with the SOE’s name, paperwork and bank account numbers. This made the household company kosher for loans from the state lenders and free from taxes. State officials, communist officials, regional and central government officials, all would look to become intricately entwined to the betterment of all parties. That is the power of Chinese networks. (China Inc.)

A challenge now is whether the system can ever shake off the image of non-compliance and circumvention, or will the countries systems of internal networking and back handers remain the norm for decades to come.

The manufacturing sector has historically been focused on increasing outputs, as a strategy to increasing revenue (to prevent having to shut down). The challenge now is, can this sector prevent over supplying markets and deflating prices. The objective must be to diversify through innovation to stimulate and utilise the surplus of this manufacturing capacity.

WTO compliance dictates that China permit foreign banks to offer a full range of services by 2006. This will offer many Chinese the opportunity to put their money somewhere other than the current bankrupt system, which is reported to have non performing loans totalling more than 500 billion USD. Another 500 billion USD needs to be spent setting up public good services like health care and a pension fund.

The government then needs to keep stimulating economic growth to facilitate its many infrastructure commitments.

Statistical information has formed a large part of the state and regional government planning process, as well as the reward system for performance. Hierarchical levels exist, so when statistics are collected, integrity of the data can be challenged at each level as officials look to their own self-interest. An example of this is the huge difference in the Partitive Purchasing Power (PPP) of the Chinese people for 2001. The World Bank estimates were \$3940 US GDP per capita, compared to the government official records as \$840 US. Reference to US Dept of Statistics. Local records don't acknowledge the value of subsidies urban consumers receive from; health care, housing, utilities, education and a lack of direct personal income tax. In rural areas food, housing and services consumed are often on an informal basis so would not be captured by an income or expense survey

2.4 Agriculture Sector generally

The figures of 71% of the population living in rural communities 10 years ago and 57 % today, says that agriculture and providing food for the nation needs to be a top priority for the policy makers. Chinese prefer to consume their food fresh and given this increasing demand from urban centres, this has created the need for the government to provide roading, and transportation infrastructure while stimulating agricultural productivity.

Agriculture, Forestry and Fisheries combined GDP in Billions of USD ;

2002	195
2003	206
2004	251

China, in the last few years has become a net importer of agricultural produce, as demand has outstripped supply and exposure to international food types, has created demand for imports.

Historically the Chinese governments agriculture development has been assisted by international aid programmes; examples

- Asia Development Agricultural Fund (ADAF is NZ based)
- Asia Development Fund (ADF)
- World Bank.
- Government- government programmes.

Often this government- government aid is in the form of technician's from the sponsoring country providing services, that will give the sponsoring country a competitive advantage for a long-term presence in this market. An example ADiL has encountered is the Canadian government sponsored Semex. They provide assistance to farmers in the form of free dairy nutrition and management advice. The off-shoot of this, is many of the systems adopted, as well as the stock and technologies used, are from the Canadian stable.

The result of the many years of free aid programmes to the local Chinese is that they don't expect to have to pay for advice or support, which fits in nicely with their culture of low up-front cost business modelling. ADiL has found that entities dealt with to date are extremely generous when negotiating profit sharing and shareholding agreements, but averse to up-front management or consulting fees.

In recent years, China's annual GDP growth has averaged around 9%, allowing the country to achieve considerable progress towards its ambitious and broad structural

reform agenda, as well as its Millennium Development Goals (MDG) Refer to appendix. 5. Some of the goals are ahead of target, with poverty reduction and universal Primary School Education being up to the 2015 target by 2002. The UN evaluation of the goals in 2002 showed that inequality and income gaps appear to be widening between urban and rural populations and between coastal and inland areas, with the poor being mostly located in the rural areas of the lagging inland provinces. China's accession to WTO implies a shift in the focus of the country's agricultural sector from grain self-sufficiency to market-driven diversified agricultural production. With WTO membership and increasing integration with the global economy, the agriculture and livestock sectors will have to undergo substantial structural changes to enhance the livelihood of rural households and to stay on track to achieve China's MDG's.

In many of China's provinces, the economy has been negatively affected by the decline of the SOE system. This has left many large industries hopelessly inefficient, incapable of attracting foreign investment and competing. The consequence of this being mass unemployment. Following the collapse of the SOE system, the government has identified in its last three, five year plans, that the agriculture (Chinese term for horticulture) and livestock industries are key elements of its future growth and poverty alleviation strategies in these provinces.

Farmers are credited with taking the first steps in creating the Chinese market economy. Farmers in the seventies lived in extreme deprivation under Mao Zedong, with average annual incomes of around \$2.50 US. They were in fact banned from entering cities or leaving their villages in search for work. The 'official' story of the people lifting themselves from these times and starting the free market economy in China, is based around 18 farmers. In 1978 they signed a secret pact between themselves, to distribute land that was government held but currently worked by them. Any produce that was created above the repressive taxes, the individual could trade. This immediately raised motivation and therefore productivity. It was regarded as an illegal practice at the time but quickly caught on and became the official model. This coincided with the time the state relinquished its role as the 'Universal Provider' and the emergence of Deng Xiaoping (the father of China's market economy). Now the farmers in that area have the relatively extravagant lifestyle with average incomes for 2003 of \$313 US. One of Deng's sayings was 'it does not matter if the cat is black or white so long as it catch's mice.'

In many ways the situation has not improved much for farmers where corrupt local government officials and extortionists have conspired to keep peasant farmers at subsistent levels. Until recent times (particularly with internet access) public press would not give account of the atrocities inflicted on peasant families.

2.5 Dairy Industry specifically

The dairy industry in China has experienced a 20-25% annual growth over the last few years (Refer Appendix 2). Milk demand over the last 10 years has gone up 450 % and over the next 5years is expected to go up another 38 %. Also the expectation is for Friesian cattle numbers to increase by 4.6 million. With the existing on-farm reproduction inefficiencies, they will not be increasing numbers through natural increases, so this only leaves ET production, cross breeding local cattle and beef cattle or importing Friesian cattle. The demand for stock from NZ and Australia has been very strong in recent times with the advent of Bovine Spongiform Encephalopathy

(BSE) in the northern hemisphere. The opportunity exists now for NZ agri-tech companies to be a pivotal provider of land development technologies and integrated systems. This groundwork could set the platform also for NZ milk manufacturing companies.

China's dairy farms are structured into three groups;

A. Household Farmlets

5-10 head. This model represents around 70-80 % of the cows in china. These farmlets will be serviced by a family that usually will have land allocated to them to grow their own cattle feed, with the balance used to feed themselves. The milk will be collected by the household and transported to a milk collection station, from there it is transported to the local manufacturing plant. The total number of head is usually made up of 40% milking cows, 20% dry cows, 20% rising two year olds and 20% rising one year old. These farmlets will have either hand milking or using an electric single set of cups, with 60% of cows reportedly still milked by hand.

B. Cooperative Model Farms.

Called Dairy Gardens they consist of farmlets within a large managed fenced-in compound or contained within a villages structure. They carry 5-40 head/ farmlet and there could be as many as 30 to 40 farmlets/Dairy Garden.

These Dairy Gardens comprise of multiple farmlet owners, milking through a communal cowshed. Each farmer milks, and tends to his own animals. The Dairy Garden will have a manager, who often has the role to organise the feed supply and consumables. The more modern and larger farmlet involves a considerable investment and often the herd will be owned or have input from an urban resident.

The modern dairy company or entrepreneur-initiated models are often built for scale to involve, 40 farmlets x 40 head (This would include 16 head milking, 8 head dry, 8 head of heifers and 8 head of yearlings). This would give a 1600 head capacity if the Dairy Garden was fully stocked. This is our favoured model as all the stakeholders have the most chance of success.

The farmers are motivated to grow their business, as they are the self-employed herd owners, they have scale and they have mechanical milking facilities. The owners of the support facilities are motivated investors as they have a scale operation. This investor can be a dairy company, private entity using local government resources or arm of local government providing these facilities)

This model works in with the Chinese governments five key objectives for Agriculture. Refer to Appendix 4.

C. Corporate Farms;

These comprise of 200 head up to 10,000 head. These entities may be a company or JV with multiple owners, the entity will own all the stock, plant and control the land. There is also a high probably that the Corporate farm will be heavily connected to government, and will be leveraging central, regional and local government loans. These farms can range from the modest, to excessive infrastructure with state of the art milking and housing technology. Usually these high profile farms are showcases, but they are displaying the wrong model for the people to learn and adapt to as the people running the farms are employees and lack the same motivation to adapt as the herd owners in the household and cooperative models.

2.6 Challenges to the dairy industry.

1. NZ dairy cattle have been subject to ridicule in the press in China from what would appear to be a smear campaign. Most of the issues have been born out of a lack of dairy nutrition understanding. Firstly by the importers/traders of the cattle into China, who did not care for the cattle adequately, then the problem has been compounded by the Chinese farmer. Both these entities, in many cases, had little livestock experience and who culturally has a low cost mentality toward any inputs. The animals themselves often had been mated in NZ 6-12 months before their contemporaries in China. They are therefore regarded as small, which has compounded the result. This negative publicity has helped fuel a depressed livestock market that has then made leveraging the existing business for growth very difficult.

2. There is intense competition and rivalry in the milk procurement market, due to the oversupply of capacity and growth plans that are not based on logical expectation. This should be good for suppliers of milk to these manufacturers, but the competition in an immature retail market means the manufacturers are competing on price. This has depressed the prices paid to farmers, which is making profitability difficult.

3. Importation of dairy heifers has all but stopped in the 2005-2006 trading year because of six negative influences;

A. The local market's milk returns are down making profitability elusive.

B. Local market stock prices are depressed.

C. Poor reputation of NZ and Australian heifers, and the trouble in clearing the back-log of heifers, from past shipments on the quarantine farms, has made the Chinese government hesitant on issuing import permits.

D. High exchange rate differential between NZ and China.

E. High shipping costs.

F. Increased sale price in NZ and Australia due to upturn in world dairy commodity prices and demand for stock from South America. The MOA has stated that its expectation is for the national herd to increase by 5 million Friesian's in the next 5 year. Refer to appendix 7.

4. Research and investments are needed to improve the environmental sustainability of dairy development, including better management of the province's pastureland, improved feeding and usage of crop residues, as well as waste management, to mitigate the local and global adverse effects of the livestock sector on climate change and the environment.

5. People ADiL have dealt with have been highly informed and usually university qualified. The reservation that may occur when dealing with these quality people, once trust and integrity has been established, then comes from the accuracy of the information provided. Refer to section 2.3

6. Last but not least is the economic and social meltdown if the Asian Bird Flu further mutates and a pandemic occurs. There have been 100 million birds killed in Asia since 2003. In addition 62 people have already died. The Asia Development Bank is predicting a worst-case scenario cost to the region of \$282.7 billion US. The World Bank states it would cost the world economy \$800 billion US and send the global economy into recession. Refer to World Bank report.

3.0 Why China.

With China's massive growth in productivity comes the inevitable rise in standard of living, discretionary expenditure and access to western technologies and consumer choices.

Couple this with two of central governments major issues;

Firstly, preventing urban drift, where peasant farmers migrate to cities for employment, creating massive infer structural issues for the local governments. There are now 160 cities in China containing over one million people. Many local governments are said to be effectively bankrupt in an effort to comply with international standards

Secondly, is the need to provide healthy domestically produced food for the people, which will enhance their diet. In the case of dairying, dairy products have the ability to improve child health statistics, and would reduce the incidence of Rickets and Osteoporosis in women.

The Government supports the dairying industry strongly in chosen rural areas because of the wealth generated from the money flow-down effect. Wealth returns from the cities through milk product sales, to the manufactures, (quotes between 650 and 1500 of them) and onto the local factory operators, administrators, technicians, drivers, support people and dairy farmers. The dairy farmer passes the money onto his service providers and to the feed supplying farmers (primarily being maize, soya and alfalfa). All these infrastructure support networks, including the peasant and cropping farmer, are then better off by having a higher value market to supply. Chinese inability to manage and integrate efficiently this supply-chain, has made the payment to dairy farmers too low to support the cost structures and the debt servicing needs that have accrued from dairy cattle purchases. The average farmer gets between 20-37c/ litre similar to NZ at 35c. at a \$4.50 Payout and an 8.5% solids test.

Many of the dairy companies were until recent times run by government employees, in these companies there was little motivation to drive efficiencies or to innovate products, or for that matter, to be in touch with what the market preferred. With privatisation of the manufacturing assets, by management or local government officials taking ownership, there is a real drive to create profitable business. Multi nationals are moving into the industry bringing new levels of sophistication and innovation to the whole value chain, but historically these multinationals have been loath to get involved in farming other than to set price signals to achieve their companies outcomes.

These big players are; Nestle' who have their own manufacturing capability in China, Danone who have an interest in Shanghai Bright and Arla Foods who have an investment in Mengnui. Reference:to'China dairy Association' report.

4.0 China Challenges - ADiL Solutions.

ADiL takes a consortia approach to its presence in China, meaning that we see our company as the tip of the wedge, where many NZ companies can leverage off the **Guanxi** (trusted contact) we have created, to gain market access.

4.1 Intergration and optimisation of resources.

This is something that the Chinese do not do well as the economy has been dominated by SOE and state intervention at every turn, which has resulted in political skill, not management skill, being advanced.

In the Chinese culture and language there is no term for the concept of ‘trade-off’, as historically there has not been a need when the Chinese are only interested to find “the way forward” and not been interested to find the best balance of resources along the journey.

Conversely ADiL’s skills are based around resource management, focused on improving the **viability** of milk production, through measuring and monitoring the inputs, targeted to optimise outputs. The dairy industry has undergone massive expansion through government financed stock and dairy development schemes, with many of the participants now reviewing where this growth has got them, as profitability has eluded them to date. With an average production of 3,300 kg of milk per cow per year, further gains on production will require significant investments in improved herd nutrition/management and genetics and staff education. The Chinese realise that the key to future expansions and funding is in making their existing operations viable. ADiL can meet their needs through integrating inputs and focusing on productivity. Key areas to focus on are:

- A. Sourcing, growing, harvesting and storing, fit-for-purpose crops and bi-products.
- B. Feed management principles of balancing feed ration to the specific cattle class.
- C. Timing of calving patterns to suit climatic constraints and feed availability.
- D. Addressing performance inhibiting animal health issues such as trace elements, fertility, lameness and parasite control.
- E. Rationalising administrative overheads.

4.2 Milk quality.

70-80% of milk production is produced by smallholder households with an average herd size of 3 to 5 cows. 60 % of cows are said to be hand milked, with this practice soon to be banned by some manufacturing companies in their bid to improve quality and give themselves some more manufacturing options. These farmers and other potential dairying households have little or no access to formal financing for investment in dairy production and improvements. As the pressure comes on from manufacturers for suppliers to produce quality milk, many of these farmers will have to accept joining a collective called a ‘Dairy Garden’, where a communal dairy shed is used, if one is available.

World Bank is currently undertaking a large project to provide milk-harvesting infrastructure to strategic regions in Northern China.

ADiL is looking to work with a large dairy manufacturer in Northern China to address some of these issues, which will improve quality and quantity from their supply base. This will give this manufacturer a marketing edge with four advantages from adopting this investment;

- A. Enable a broader product mix.
- B. Labelling and promotion of the premium quality standards.
- C. Leveraging NZ's clean, green image and its association (not to be underestimated).
- D. Grow their market share in their chosen markets.

4.3 Business Planning.

Documenting the stages and Key Performance Indicators. (KPI's) to grow their business and local industry .

These plans should be able to demonstrate;

- A. Improved viability from identifying, optimising and then integrating the available resources.
- B. The benefits of achieving economies of scale. -
- C. The social and environmental commitments of the entity to the people.
- D. To government, bankers and other stakeholders, that the entity meets their demands.

4.4 Strategic Planning Input.

A pre requisite with any company we get involved with is a seat on their board.

We can add value through meeting their needs of;

- A. Planning for future growth.
- B. Improving marketing and consumer awareness of milks health qualities in general and the chosen entities milk qualities specifically.
- C. Attracting and facilitating commercial interests to the business and industry, to facilitate capital growth, and accruing capital gains through shareholding demand.

4.5 Capital Resource Sourcing.

- A. Facilitate the purchasing of cattle from NZ.
- B. Facilitate finding the most sustainable dairy technology that is fit for the purpose.
- C. Provide systems and structures for stimulating and measuring the growth of the business, supported by appropriate IT software.
- D. Provide dairy and business training for personal at all levels. (Education and representation of farmers to date appears not to have been an important factor to consider in a sector that has, so far, been driven by milk processors).

5.0 ADiL's outcomes.

Throughout this first stage of evaluation and contract negotiation, there has been many opportunities put forward as a result of the good work from NZT&E staff at their dairy desk in Guangzhou, China.

ADiL settled onto focusing its entry point into the China dairy development market with an alliance with Guangxi State Farm Bureau (GSFB), from the Guangxi Province in Southern China. This bureau has 180,000 employees, covers 166,000 ha's, it has 6 Pillar industries and is looking to make dairying and beef production the 7th and 8th Pillars.

Their experience in economic cooperation relationships spans 40 countries and regions with 125 partner enterprises. The contract value of these agreements is 1.5 billion USD over the last 2 years.

The key determining factors for ADiL choosing GSFB as its entry point into the China agriculture development market were;

A. The people with their passion for developing their farms agricultural outputs and their collaborative business culture.

B. The fact that they appear to have significant successful experiences in cooperative relationships.

C. GSFB have significant economies of scale, a tropical environment second to non for growing animal feeds and a dairy industry in its infancy. GSFB will value our input and allow us to grow with the industry as a key participant.

D. The scope of the opportunity, with the options to develop the regions beef industry, dairy Buffalo, Embryo Transplant centre and manufacturing /marketing company we believed was the best situation to accommodate a platform for NZ agri-tech companies.

E. The local market in Guangxi province has 45 million people that history says would support local brands of quality produce. Also Guangdong Province next door which is China's fastest growing province in the last ten years, containing, 80 million people is China's manufacturing power house. Guangdong province has a rapidly rising standard of living and it is believed consumers there would also support local Guangxi province brands.

F. Nanning, where ADiL will set up its office, is the home of the annual ASEAN conference. Last year the Chinese government spent 220million RMB to organise this event. Government leaders and leading industries from each of the 10 South East Asia countries plus China are present. There is no better place for NZ agricultural companies to show their worth.

6.0 LESSONS LEARNT

6.1 'Rules & Laws' in commerce are guidelines only.

An analogy used is the white lines on the outside of a road in China; they highlight only a platform for the direction of travel.

This premise is used also for driving behaviour, as driving in China will either shatter your nerves or steel your resolve for any outcomes.

6.2 Think in circles not lines.

Chinese think in circles when business modelling and pictures when looking into the future, or describing an event. They take in a holistic view of a situation. This means they consider all factors when business modelling any growth opportunities and they define benefits on multiple fronts (hence the reference to circles).

For the uninitiated, **expect the unexpected** as any tactics are fair game, although translation and interpretation can play a part through misrepresented meanings. To succeed, ADiL's view is "you must enjoy the journey with their people, including the massive banquets, copious toasting (hint; don't get out numbered more than 2 to one) and gruelling health massages."

6.3 Guanxi.

This is more than a personal connection it's the social capital that comes with having that person as a friend or close associate. In China the person or entity with the best Guanxi usually wins, meaning the best connected entity gets to do it their way. Also, the cost of a favour must always be reciprocated, or you will lose face completely.

6.4 The Intermediary.

In China if you don't have an intermediary with Guanxi then stay home, as trust can't be earned, as business relationships can't begin to be formed without it. One trusted person must pass you along to their trusted associates. The key here is finding the personal links to your target person or organisation

6.5 Contracts versus Cooperation.

Chinese negotiators are said to be more concerned about the means than the goal. ADiL's experience would confirm the fact that Chinese have an aversion to signing up to any form of specific contract, preferring to sign into a general Treaty of Co-operation. They regard this as adequate, as they don't rely on courts to settle disputes and they know officialdom will back their side (unless your officials can out muscle theirs).

This Treaty of Co-operation agreement achieves three goals for the Chinese;

A. It gives them the opportunity to leverage the relationship to their superiors, to the banking and finance fraternity, to government officials and to the people (CCP).

B. It gives them a broad, unrestricted base to use as the business platform.

C. It gives time to build the relationship, develop trust and strengthen bonds, before defining the best way forward. (Yin and Yang)

6.6 Understand 'The Art of War'.

Written 2,500 years ago by the ancient Chinese philosopher Sun Tzu. This text informed people that most of the major wars in the 20th century could have been

avoided if the respective military and political leaders of the time had studied this book.

In business in China, count on the fact that there will be a high degree of strategy involved as this is an ingrained practice, if you are not prepared, then you will not be a respected adversary. Sun Tzu wrote “If you know the enemy and know yourself, you need not fear the result of a hundred battles.”

Looking back to the Chinese brewery wars in the late eighties when Lion Breweries naively walked in, they had zero chance of success. The SOE monopolised industry, was getting rationalised through aggressive takeovers that were driven by power hungry government people acting in a private capacity. The issues for Lion were;

- A. They were foreigners, and had no *guanxi* in China.
- B. They did not know the rules of engagement or have any control over rule changes.
- C. To succeed in China you need to have the blessing of ‘the people’, government, and/or the backing of its policies which Lion didn’t have.
- D. Their timing could not have been worse.

With Fonterra endeavouring to secure a deal with an existing milk manufacturer in China, the first three of the above drivers would appear to be working in Fonterra’s favour. The last issue ‘timing’ could work against them. Fonterra’s largest customers would then become its competitors after a partner has been chosen, and as there is a war on between milk manufacturers. The benefits of having a manufacturing toe hold to leverage off, would have to be weighed up against the political fall-out from upsetting the biggest players.

As Appendix 1 illustrates, the big growth forecast in China dairying is aimed at domestic production and not at quantum leaps in imported product, which would support Fonterra’s initiative to be part of that growth industry.

6.7 Control, Control, Control.

Retain the right to shut the business down. JVs through the eighties and nineties were the preferred mechanism, but due to the very high fall-out rate and government freeing up the ability for WOFE’s, this has become the preferred vehicle for companies entering China as they have 100% control once government criteria are met.

6.8 “Cross the river by feeling the stones”.

This is a Deng Xiaoping quote referring to the fact that the economic way forward is through caution and experimentation. However growth opportunities and encouragement to develop business at break neck speed is immense. To be patient and develop strong networks based on **Guanxi** takes time. The challenge here is to maintain momentum through negotiations and early stage interactions to appease the Chinese desire to get on and make the picture happen and the Kiwi desire to define and understand the parameters of the business.

6.9 Show one Face.

Show one face, means to understand and align your goals with ‘the peoples’ goals otherwise it is **impossible** to succeed.

Also understand your goals, target market and your bottom line as it is easy to get caught up in the hype and opportunities presented. Do not accept long-term pay backs

as this is not what the Chinese would accept for themselves. China is so immense in its scale, cultural diversity, varied ways of transacting business and where every rule can appear to have many permutations, that to operate there can become very absorbing.

6.10 The four cultural threads.

These threads have bound the people together for 5,000 years, and they show through in business negotiations.

A. Agrarianism refers to the Chinese's rural roots and affinity with the land and their country. During the Cultural Revolution, Mao Tsetung sent bureaucrats and students to be "re-educated" by the peasantry.

B. Morality refers to the belief in social order, derived through hierarchical respect.

C. The Chinese pictographic language is based on thousands of pictorial characters, so words are seen as pictures. Perhaps this is why the Chinese are known to be better at seeing the 'big picture' than their western contemporaries.

D. Wariness of foreigners has been learnt the hard way from years of invasion, civil war and internal squabbling. It is said the Chinese trust only two things, their families and their bank balance.

Appendix.1.

	2002	2003	2004
Agricultural Exports	13.0	15.4	15.8
Agricultural Imports	10.8	17.4	25.9
China's GDP in Trillionns	1.27	1.42	1.65
GDP Growth. %	8.1	9.5	9.5
Ag, Forrestry & Fishery GDP	195	206	251
Agriculture GDP Growth. %	2.9	2.5	6.3

China Ministry of Agriculture Report.

Appendix 2.

Central Government Objectives

Source: Mr Nui Dun: Vice Minister, Ministry of Agriculture (MOA), LPA interview/presentation, Innovation Park 17 November 2004:

According to Mr Dun there are five key factors for economic, social, environmental and food production in China.

- Increase the knowledge of the peasant farmer.
(economic, social)
- Increase rural community business activities.
(economic, social)
- Improve production using modern technologies.
(economic, food)
- Improve soil and water quality for safe food supply.
(economic, social)
- Increase China milk production.
(economic)

Appendix 3.

China's Millennium development Goals.

1. Eradicate extreme hunger.
 2. Universal primary education by 2015.
 3. Promote gender equality and empower women.
 4. Reduce child mortality.
 5. Improve maternal Health.
 6. Combat HIV/Aids, Malaria and other Diseases.
 7. Ensure environmental sustainability.
 8. Develop a global Partnership for Development.
- (United Nations report 2003)

Appendix 4.

World Bank Group China Profile report.

	2000	2003	2004
Population	1.3	1.3	1.3
GDP(US\$)	1.1	1.4	1.7
GDP annual growth %	8.0	9.3	9.5
Exports.(% of GDP)	25.9	34.3	40.2
Imports (% of GDP)	23.2	31.8	39.2
Revenue, excluding grants (% of GDP)	7.9	-	-0.4

Appendix 5.

Liquid Milks

A breakdown of volume and growth rates for liquid milk is given below:
(Units: The numbers under each year are in 000's mt)

	2000	Growth Rate	2001	Growth Rate	2002	Growth Rate
Liquid Milk	1,341	41.2%	2,461	83.5%	3,551	44.3%
Fermented milk	161	41.2%	357	121.7%	799	124.0%
Pasteurized milk	738	29.4%	1,058	43.5%	1,115	5.4%
UHT milk	335	68.0%	871	159.8%	1,637	88.0%
Others	107	61.3%	175	62.8%		

Data source: The volume of liquid milk is from Statistic Bureau data. The breakdown of products is from China Dairy Industry Association (CDIA).

Appendix 6.

Milk Output of World Main Produces.

Country	1990		1995		2000		2004	
	Output	Percentage	Output	Percentage	Output	Percentage	Output	Percentage
World	430.45	100.0	535.92	100.0	574.17	100.00	608.73	100.00
Australia	6.46	1.50	8.46	1.58	11.18	1.95	10.38	1.70
Brazil	15.08	3.50	17.13	3.20	20.53	3.58	23.46	3.85
Canada	7.98	1.85	7.92	1.48	8.09	1.41	8.00	1.31
China	6.82	1.58	9.11	1.70	11.99	2.09	22.49	3.70
India	53.68	12.47	65.25	12.17	80.83	14.08	90.42	14.85
Netherlands	11.23	2.61	11.29	2.11	11.16	1.94	10.70	1.76
New Zealand	7.51	1.74	9.29	1.73	12.24	2.13	14.78	2.43
Russian Federation	0.00	0.00	39.31	7.33	32.28	5.62	31.14	5.12
Ukraine	0.00	0.00	17.27	3.22	12.66	2.20	14.01	2.30
UK	15.25	3.54	14.84	2.77	14.49	2.52	14.60	2.40
U.S.A	67.01	15.57	70.44	13.14	76.02	13.24	77.57	12.74
The others	127.46	29.61	155.69	29.05	165.11	28.76	172.49	28.34

China has gone from the 9th largest producer in 1990 to 4th largest producer in 2005.

Appendix 7.

Balance Sheet of Raw Milk, Dairy Cattle and Feed in China. 1995-2015

		1995	1998	2000	2003	2004	2005	2010	2015
Total Population	Billion	1.21	1.25	1.27	1.29	1.30	1.31	1.35	1.38
Rural Population		0.86	0.83	0.81	0.77	0.76	0.75	0.73	0.70
Urban Population		0.35	0.42	0.46	0.52	0.54	0.56	0.62	0.68
Total Supply of Raw Milk	000 Tons	6367	8173	10613	20667	26094	29335	35948	41803
Supply of Raw Milk		5918	7454	9189	18486	23689	26450	32177	36421
Supply of Milk		5764	6629	8274	17463	22536	23663	28104	33378
Supply of Imports		449	719	1424	2181	2405	2885	3771	5382
Total Demand of Raw Milk	000 Tons	5743	8515	10610	20125	22661	26073	36053	41864
Demand of Exports		60	115	158	177	178	176	173	164
Total Demand of Dairy Cattle	000 Head	4172	4265	4887	8946	10629	10988	12234	13621
Demand of Holstain Cattle		1340	1800	2130	2750	3320	3830	8430	10897
Total Demand of Feed	000 Tons	3907	4921	6067	12205	15640	17450	21228	24028

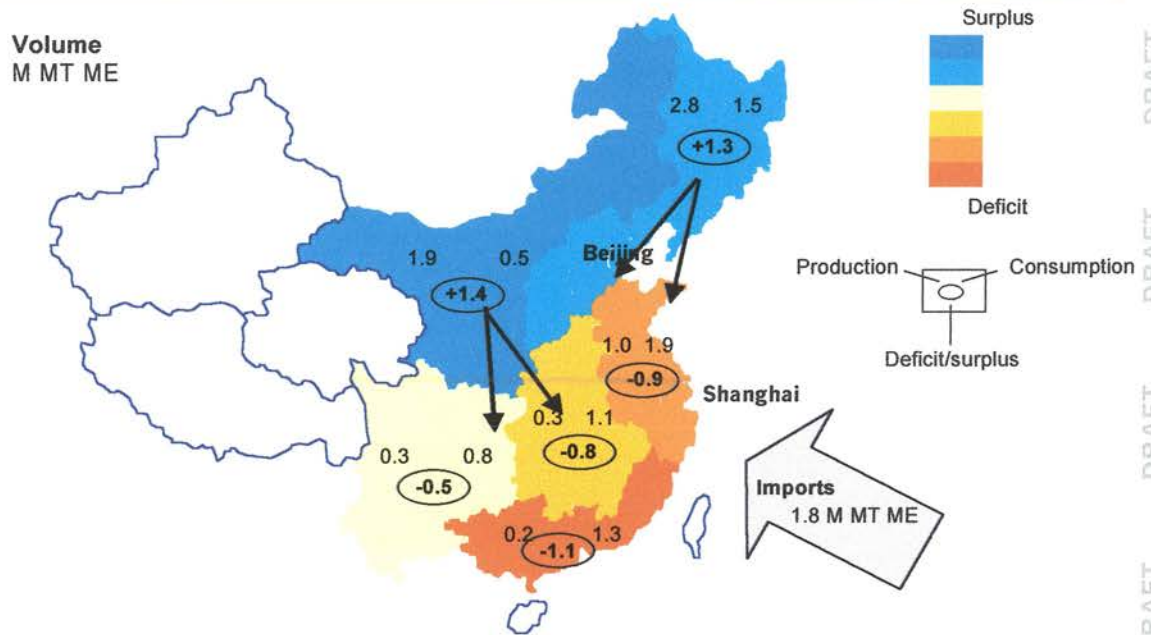
Appendix 8.

Balance Sheet of Raw Milk Supply & Demand in China. 1995-2015

	1995	1998	2000	2003	2004	2005	2010	2015
Total Demand	5743	8515	10610	20125	22661	26073	36053	41864
Domestic Demand	5683	8400	10452	19948	22483	25897	35881	41700
Liquid Milk	1909	2971	4999	10559	10868	12145	19354	22423
Yoghurt	91	266	514	1325	1541	1775	2696	2994
Milk Powder	2125	3291	2970	4743	6372	6676	7464	7787
Butter	170	206	239	297	309	337	417	502
Cheese	39	42	55	70	73	117	214	716
Whey	277	520	895	1163	1281	1530	1956	2473
Others Dairy Products	1072	1104	779	1791	2038	3317	3780	4803
Exports Demands	60	115	158	177	178	176	173	164
Total Supply	6367	8173	10613	20667	26094	29335	35948	41803
Domestic Production	5918	7454	9189	18486	23689	26450	32177	36421
Imports Supply	449	719	1424	2181	2405	2885	3771	5382

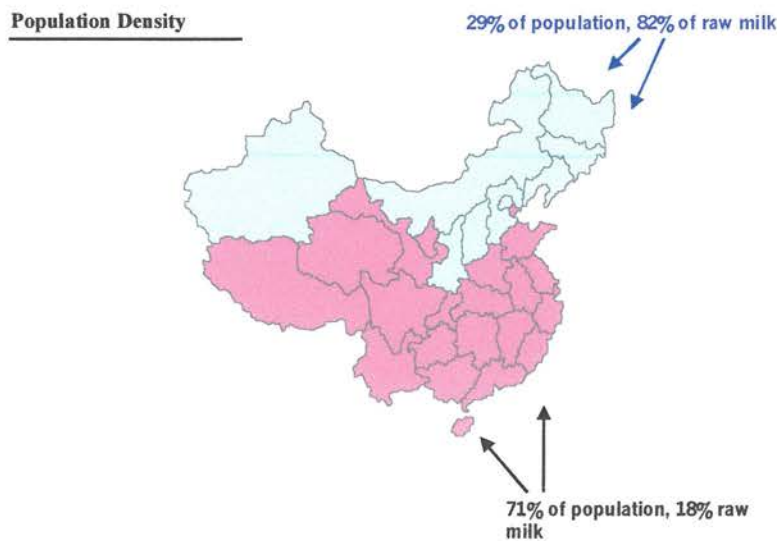
Appendix 9.

The Southern regions will present a major supply deficit



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Densely populated in the East and Central, milk supply is in the North



20

Abbreviations

ADAF	Asian Development Agriculture Fund
ADB	Asian Development Bank
ADIL	Agriculture Developments International Limited
ASEAN	Association of South East Asia Nations.
BSE	Bovine Spongiform Encephalopathy
CCP	Chinese Communist Party
ET	Embryo Transplant
GDP	Gross Domestic Product
JV	Joint venture
KPI	Key Performance Indicators
MDG	Millennium Development Goals
MOA	Ministry of Agriculture
NZ	New Zealand
NZT&E	New Zealand Trade & Enterprise
SOE	State Owned Enterprise
USD	United States Dollars
WOFE	Wholly Owned Foreign Enterprise
WTO	World Trade Organisation

Expressions used;

‘the people’ refers to the masses, the CCP party, the general consensus.

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