

Strategic Analysis on Networking and Digitizing of Agricultural Sciencetech Information (ASTI) in China

**---Selection of Strategy of “Information Across” &
“Strengthening Country by Information”**

Prof. Mei Fangquan

Director-General, Group of Information Expert , MOA, China

Former Director-General, SDIC, CAAS

President, IAALD, China Branch

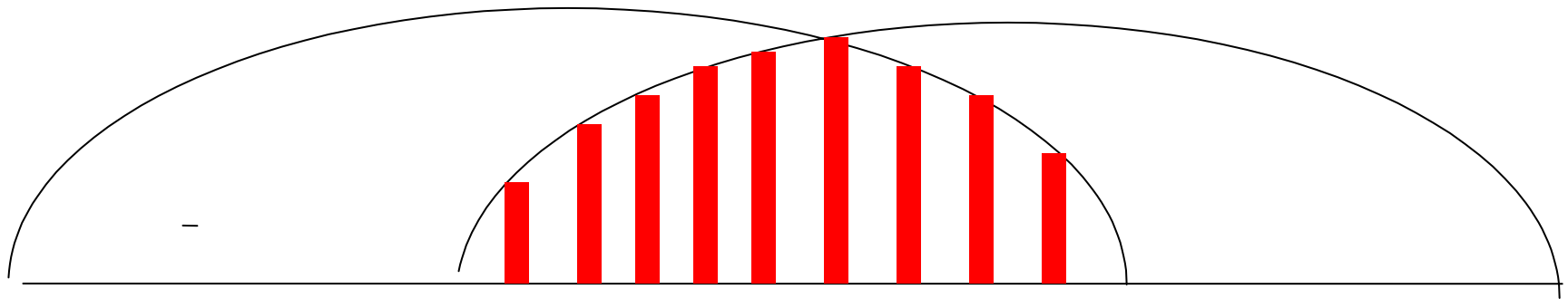
President, Asian Federation of Information Technology in Agriculture

**When human entering 21 Century,
the tidal wave of Informationization
is sweeping over the world.**

**we should speed up informationization,
promote agricultural modernization,**

**full play the advantage of post-development,
realize “Across Development”.**

Overlap Period & Overlap Effect



**Modernization
Age**

**Overlap
Period**

**Informationization
Age**

I. Background of development of networking and digitizing of agricultural information.

**---Foreland of competition of
sciencetech and industry of
information in agriculture.**

**1. China should not miss again
the historical opportunity of
the second industrial revolution and
age transformation of the mankind**

**the transformation of traditional agriculture
to industrialization and modernization had
undergone the first industrial revolution.**

**China, an old sleeping civilized country,
had missed the historical opportunity.**

At present, the mankind is now entering a new industrial revolution, which takes the information technical revolution as the lead and promotes human society to an information society and an information age.

If we say due to historical reasons, our ancestors had missed the historical opportunity in the first industrial revolution and industrialization, however, we should not lose this historical opportunity.

2. The rise of the Asian Information Network and E-business has stimulated a high speed development of modern information industry.

In recent years, especially during the period from winter of 1999 to spring of 2000, the E-business in Asia and China had developed very rapidly.

It really stimulated the strong desire of the Chinese people in promoting informationization in the country.

China is the biggest computer market in the world, and the users of Internet are increasing very sharply.

During a period of only 2 years from the end of 1997 to June 2000, the number of Internet users has increased from 620,000 to 16.9 million, an increase of more than 30 folds, which showed an enormous potential in information industry in China.

3. ASTI industry is now on the path of restructure.

In recent two years, due to the fact that restricted by consumer market, technical means, most of the websites are small in size and have not enough fund and are repeated operations.

Therefore, most of the websites are difficult to keep running . But some websites have realized united or have purchased or merged other websites, displaying a strong advantage and representing the development trend of information websites.

4. Networking and digitizing of ASTI has promoted the globalization of agricultural scientech and economy.

**People can access large quantities of information about the world market via information networks,
---mobilize various links of industry operation,
---realize optimal structure of agricultural production and market as well as resources,
---strengthen the competition power both at domestic and foreign markets.**

**II. Strategic development
during the Ninth Five-Year Plan period
—The start of ASTI
networking and digitization**

Under the support of the government departments, agricultural information sciencetech had developed very rapidly, which had laid a solid foundation for agricultural informationization in China.

1. The construction of information networks has displayed the integrated strength of modern scientech and economy.

In 1996, the MOST and MOA formally approved the first state-level “China Agricultural Scientech Information Network” and formally put into operation in October 1997.

In 1998, the SDIC/CAAS has realized for the first time in the country one computer for each employee.

At the same time, the academies of agricultural sciences and universities of some of the provincial constructed their own campus networks and had speeded up the sharing of resources and information exchange, supported the reform and development of scientech and education.

In 1998, the first agricultural scientech multimedia manufacture center was established in SDIC/CAAS, which also promoted the multimedia application on networks.

But, there have existed some restraints in the construction of information networks:

- regional unbalanced development,**
- most of the organizations have not enough found,**
- slow and unstable operation of information net, -**
- fewer resources on the web.**

2. The construction of information resources and databases has displayed the strength of digitization.

The construction of digitization of information resources is the core area of competition in agricultural information.

Whoever has the strongest digitized information resources own the most wealth.

During the Ninth Five-Year Plan period, China has enhanced support, and the documentation of NAL can basically meet the demand of the users.

New development in the construction technology of agricultural scientech databases.



The SDIC/CAAS owns 11 large foreign and domestic databases, the China agri-scientech database has 500000 records and relative CD-ROM disks which can be used to search for 85% of the agricultural scientech documentation information.

Meanwhile, strengthened the combination with the provincial academies of agricultural sciences and agricultural universities, which has promoted the complementation of advantages

**We are also faced with a series of
new problems:**



From a general view of the whole country, we are still short in acquisition fund and the collection of international documentation is still decreased.

We have both short documentation categories and repeated documents. The management system and development demand is not adapted with each other. We are short of unified coordination and planning, and short of necessary cooperation.

III. Strategic selection of ASTI during the first 10 years in 21 Century

**—— Basic realization of ASTI
networking and digitizing**

The strategic objectives of ASTI during the first 10 years in 21 Century :

basically realize ASTI networking and digitization in the agricultural research institutes and universities,

promote agricultural modernization by agricultural informationization, and provide information technical support for a leap-over development in agriculture.

1. To organize and construct “China Agricultural Science and Education Network” is an important step to occupy the information market.

It is essential to accelerate the expansion and perfect the “China Agricultural Sciencetech Information Networks” while realize the mutual promotion of the two networks.

2. Realize basically the digitization construction of information resources and accelerate the preliminary wealth accumulation of information resources.

It is essential to give priority to the construction of a huge batch of large-scale agricultural sciencetech databases.

The databases should have their construction in layer and domains and realize standardization and resource sharing.

3. Establish the largest China Agricultural Research Information System (CARIS) in the world and improve its operation efficiency

In the process of research and exploration of ARIS, we have already found some practical paths adapted to China's condition. The construction of ARIS system is implemented under the guiding principle of “unifies planning, construction in layers, multiple element investment and common construction and resource sharing”.

4. Strengthen the construction of management information system and expert system and support the creation of information agriculture.

Improve agricultural MIS &ES, increase the functional level of the system and expand the application domains .

5. Promote the research and development of agricultural multimedia and improve the simulation results of agricultural system

6. Promote the union of agricultural sciencetech journals and organize to establish agricultural sciencetech journal groups.

7. Promote the research on agricultural information analysis and decision support system and provide technical support for high efficient management.

8. Promote and improve agricultural automated translation system and support the globalization of agricultural scientech and economy.

9. To accelerate the training of agricultural information talented people has grasped the core of competition in current information domain.

10. To adjust the structure of agricultural information discipline is the key to realize quality leap-over in agricultural science and technology.

During the first 10 years in 21 Century,
**it is essential to popularize information
technology knowledge and skills in
agricultural research institutions and
agricultural universities in an all-round way,
realize an all-round connection of ASTI
networks to every institute and every
university and every staff.**

Thank you very much

