

Development of Agro-Informationization in China and Establishment of Information Network for UNAPCAEM

中国农业信息化的发展与UNAPCAEM信息网络建设

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The current status of development of Information Network Technology:

当前信息网络技术的发展状况

- 1、Information Network is a comprehensive conception, including Public Switched Telephone Network (PSTN), data network of LAN and WAN, Digital and Data Network (DDN) etc.

信息网络是广泛的概念，比如公共交换电话网(PSTN)，WAN和LAN数据网络，数字数据网等都属于信息网络的范围

several typical Information Network:

- (1) Public Switched Telephone Network (PSTN)
- (2) Digital Data Network (DDN)
- (3) Local Area Network (LAN) and Wide Area Network
- (4) Internet

几种典型的网络:

- | | |
|-------------|-----------|
| (1) 公众电话网 | (2) 数字数据网 |
| (3) 局域网和广域网 | (4) 国际互联网 |

The current status of development of Information Network Technology:

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2、The Development of Information Network are limited by key technologies, such as network transferring technology, public transferring system and solutions to “the final one kilometer” etc. key technologies:

- (1) Asynchronous Transfer Mode (ATM)
- (2) xDSL: ADSL, SDSL, HDSL and VDSL
- (3) Cable Modem
- (4) Broadband Connection Technology

ATM-Passive Optical Network supporting FTTH (Fiber to the Home), FTTB (Fiber to the Building) etc.

Broadband satellite communication,

Wireless connection

关键技术的发展制约信息网络的发展普及，这些关键技术包括网络交换技术、传输技术、公用传输系统以及“最后一公里”解决方案等。

The current status of development of Information Network Technology:

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3、At present, Internet has changed your life in Connection, Communication, Co-operation and Commerce. And it is important that Internet has become one of the industries with fast development and comprehensively potential markets.

目前国际互联网的发展已经从4C（Connection、Communication、Co-operation、commerce）层次上改变着人们的生活方式，成为中国乃至世界上增长最快、市场潜力最大的产业之一

To take China as example, according to “Report for Chinese Internet Statistics”, the number of Internet users is 79,500,000 till 31st Dec., compared to the same period in 2002, 20, 400,000 increased, 34.5 percent.

以中国为例，根据《中国互联网统计报告》2003年12月31日，中国互联网用户达到了7950万，与2002年相比增加了2040万，增长率为34.5%。

The current status of development of Information Network Technology:

当前信息网络技术的发展状况

The following figs show the development of Internet in China

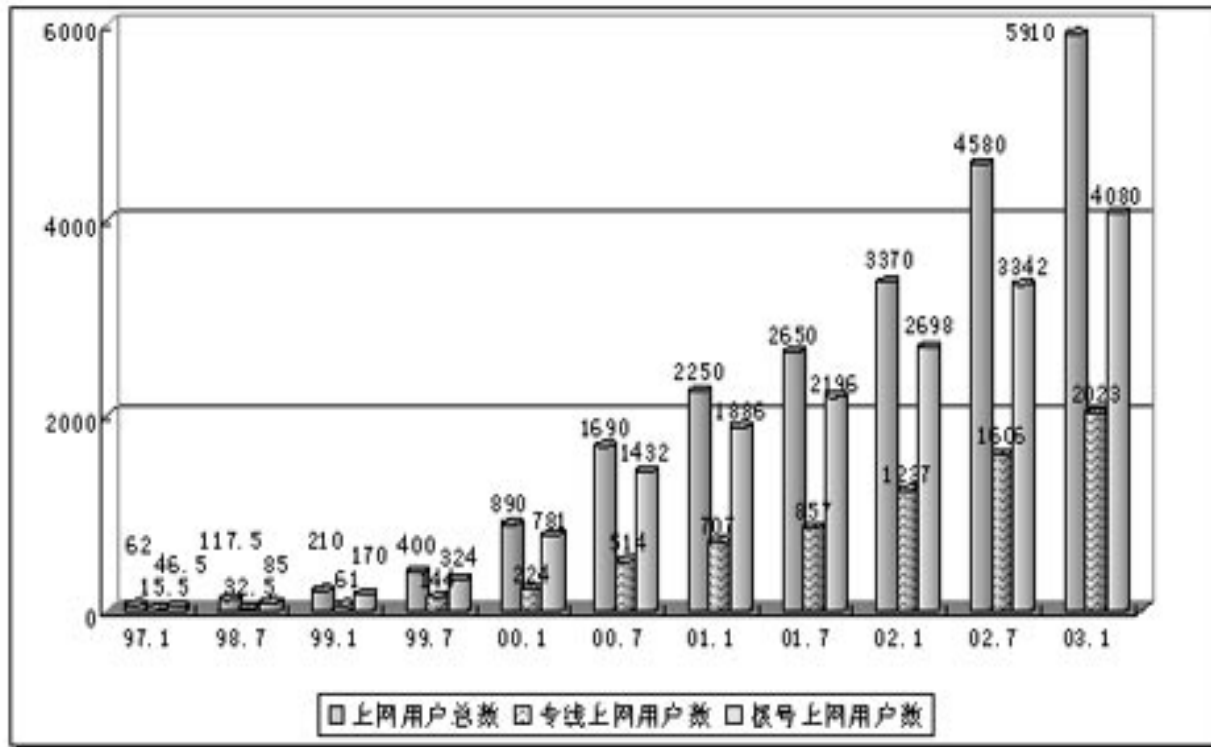


图 1-6 历次调查上网用户人数 (万人)

The current status of development of Information Network Technology:

当前信息网络技术的发展状况

4、The applications of Information network has been involved every filed and give much support to related industries.

信息网络的应用已经渗透到社会的各个领域，对于相关产业的发展起到了促进和支持的作用。

Status of Development of agro-Informationization in China

中国农业信息化发展的现状

1、Agriculture is the basic industry in China. Its modernization is of great importance to fast and sustainable development of national economy and the government also pays much attention to it

中国是农业大国，农业在国民经济中处于基础地位，它的现代化程度对于国民经济的快速持续发展十分重要，政府对此十分重视

(1) “Gold agricultural engineering” in 1994

(2) “speed up informationization and advanced technology in agriculture” brought forward at The Third Session of 15th Central Committee of the Communist Party of China

(1) 金农工程

(2) 十五届三中全会提出推进农业信息化和高技术化

Status of Development of agro-Informationization in China

中国农业信息化发展的现状

2、certain success is made in development of agro-Informationization: many websites about agriculture built, agricultural information shared in certain area, but Generalization of agro-Informationization is not widespread enough and slow in development. Some problems are still to be solved as following :

- (1) There is much difference in development of informationization between city and rural area
- (2) Most of current information facilities are out of date in rural area
- (3) The content structure of agricultural information is not reasonable
- (4) "The final kilometer" is not solved

农业信息化建设取得了一定的成就，但是存在不少问题：

- (1) 城乡信息化发展不平衡，信息流通渠道不畅：在我国很多地区农民还没有普遍认识到信息的重要作用，使得现存的信息设施服务没有充分发挥作用。
- (2) 农业信息基础设施落后：农业信息化是一项投资巨大的项目，政府投入不足，使得农村地区信息基础设施建设滞后，尤其是我国中西部地区，信息匮乏制约着经济的发展。
- (3) 信息质量结构不合理：目前农业网站大约有2200多家，但是信息同质化严重，不能做到将使用新技术有针对性的向农民传播，使得受益者不是农民和农村基层单位。
- (4) 农业信息服务的“最后一公里”问题：农业信息化的最终受益者是农民，农业信息网络的覆盖率低，也就是信息服务的最后接入问题亟待解决。

Status of Development of agro-Informationization in China

中国农业信息化发展的现状

- 3、The directions of modern agriculture are industrialization, marketization, integration, sustainable development based on the informationization. The key to construct all-round well-off society and sustainable development in agriculture is to solve the problems of agriculture, countryside and farmers.

现代农业的发展方向是信息化为基础的产业化、市场化、综合化、可持续发展。要实现全面建设小康社会、农业的可持续发展关键所在也就是解决“三农”信息化建设的问题

- 4、The topic of “world telecom day” this year is “Information and Communication Technology: leading sustainable development”. To strengthen the construction of agro-Informationization will be long-term goal of development of national economy

“信息通信技术：引领可持续发展之路”是2004年世界电信日的主题。加大农业与农村的信息化建设，将是我国信息化建设和实现国民经济可持续发展的长远目标。

Status of Development of agro-Informationization in China

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Chinese government has thought much of agro-Informationization. Chinese Ministry of Science and Technology successively supports state basic science and research project: “the database and management system for agricultural by-products processing and platform in making trade flourish by science and technology” and “information network for Chinese agricultural machinery”, and the projects are undertaken by Chinese Academy of Agricultural Mechanization Sciences.

中国政府多年来一直重视农业信息化的发展，每年投入大量资金用于农业信息化建设。在中国科学技术部支持下，中国农业机械化科学研究院承担着“国家农副产品加工数据库与信息平台”和“中国农业机械装备信息网络平台”项目的建设，为我国的农业和机械加工业、食品加工业、乡镇企业政策制定、发展规划、科学研究提供及时、准确、全面的资源信息，对发展我国农副产品行业具有很高的使用价值。

Status of Development of agro-Informationization in China

中国农业信息化发展的现状

What the development of Agro-Informationization in China needs is not only investment, policy supports and technical innovation, but also regional cooperation. To strengthen regional cooperation and win common development are of great importance for regional cooperation is helpful to base on current resources to share information resources, and then speed up the construction of agro-Informationization.

中国农业信息化的发展不仅仅是经济上的投资、政策上的支持、技术的创新，加强区域间的合作，实现共同发展也是十分重要的。区域间的合作更有利于在现有资源的基础上，实现资源共享，加速农业信息化的建设。

The goals and significance of information network establishment of UNAPCAEM:

UNAPCAEM网络建设的目的和意义

- 1、The fast development of Information network technology has become main impetus to economic development, but traditional agriculture lags behind against ICT. Utilizing information network to give new impetus to traditional agriculture to improve the management and rural economy will be an inevitable trend.

信息网络技术的迅速发展使其成为经济增长的主要推动力之一，相形之下传统农业发展滞后，农业与信息技术结合，提高农业生产的管理水平促进农村经济的发展是必然趋势

It is well known that Asia and Pacific area sees a population about 3,500,000,000 that includes three fourths of the poverty class in the world, and at the same time also the net import region in the food trade of the world, so it's urgent and practicable to solve food and clothing issues by the promotion of agricultural product availability. All these measures are helpful to alleviate poverty and merging in accordance to the Millennium development goals.

亚太地区人口众多，贫困人口约占世界上贫困人口总数的三分之二，同时也是世界上粮食贸易中净进口量最大的地区，提高农产品产量对解决该地区的温饱问题是具有重要的现实意义的，这也同UNESCAP和UNAPCAEM的消除贫困，解决社会问题的千年发展目标相符的

The goals and significance of information network establishment of UNAPCAEM:

UNAPCAEM网络建设的目的和意义

2. The information network for UNAPCAEM is of great importance to improve agricultural developments of the whole Asia and Pacific Area, provide the solutions to Agriculture, Rural area and Farmers and realize agricultural industrialization.

UNAPCAEM信息网络的建设对于整个亚太地区农业整体水平的提高，解决农业、农村、农民问题，实现农业产业化不仅至关重要，而且是具有深远意义的：

- (1) an effective way to improve development of economy in rural area and income for farmer
促进农村经济发展、农民增收的途径
- (2) Information is the foundation of agricultural industrialization and marketization, the activator to convert research fruit into real productivity.
信息是农业产业化市场化的基础，是科研成果向现实生产力转化的催化剂
- (3) Utilizing Information and Communication Technology to create a favorable environment and lay the foundation for sustainable development in agriculture.
实现农业可持续发展，为经济发展创造良好的环境
- (4) Information network is helpful to shorten the difference in agriculture development among countries in Asia and Pacific Area.
缩小亚太各国农业发展水平差距的重要途径
- (5) Information network for UNAPCAEM is the window to display status of agriculture in Asian and Pacific Area towards the world, also the channel to international exchanges with developed countries.
向世界展示亚太农业，与发达国家交流的窗口

The goals and significance of information network establishment of UNAPCAEM:

UNAPCAEM网络建设的目的和意义

- 3、Information network establishment for UNAPCAEM will provide gold opportunities to the development of agriculture in Asian and Pacific Area. To take part in Information network establishment for UNAPCAEM will impetus the development of agro-informationization and speed up modernization of agriculture in China. Then agro-informationization wouldn't be an imagination of ideal agriculture and lay foundation of modern agricultural architecture.

UNAPCAEM信息网络建设将对亚太地区农业的发展提供良好的机遇。通过参与UNAPCAEM信息网络建设，将会加快我国农业现代化与信息化结合的进程，使得信息农业不再只是我们想象中的“理想农业”，为全面构建现代农业体系奠定基础。

Concluding remarks

Agro-informationization is the base of modern agriculture, which future directions are intelligentize, automation and digital. The information network establishment for UNAPCAEM will own a coverage of Asian and Pacific Area, and find solutions to Agriculture, countryside and farmers from a wide angle, strengthen the technology transferring and cooperation in agricultural fields. It will provide both opportunities and challenges to the development of Chinese agro-Informationization. The information network establishment for UNAPCAEM provides a channel to make other countries know the development of agriculture in china and more opportunities to agriculture in Asian and Pacific.

信息农业是现代农业的基础，智能化、自动化、数字化是信息农业的发展方向，UNAPCAEM信息网络建设是针对整个亚太地区，从更为宽广的角度解决农业、农村和农民的问题，促进亚太地区在农业技术领域的交流与合作。这对于中国农业信息化建设既是机遇又是挑战，通过APCAEN信息网络平台建设为我国农业提供对外的窗口，让亚太地区了解中国农业，让世界了解中国农业，为亚太地区农业的发展带来更多机会。



Thank you!

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