"Straw Hat University" Initiated by "Farmer's Professor", the Tried & Tested Approach to Alleviate Poverty in China

Abstract: China is out of extreme poverty in 2020 on schedule and one decade in advance to fulfill the UN 2030 Agenda for Sustainable Development Goals (SDGs), and became the first developing country to alleviate poverty in half century. Therefore, a large numbers of effective approaches are emerging, and the intellectual's technology-led poverty reduction, which locally known as the "Straw Hat University" initiated by "Farmer's professor" mode, is the most tried and tested approach motivated by the intellectual's "Serve the people" tradition and supported by the all nation. This research conduct case analysis with three most remarkable organic intellectuals as Agronomist Yuan longping, Mycologist Lin Zhanxi and Plant pathologist Zhu Youyong with their bridging gaps in food security, regional imbalance and ethnic disparity respectively to sort out the sustainable modules and universal experiences. The conclusion indicates that "Farmer's Professor" Initiated "Straw Hat University" is an effective approach to solve human beings' development problems and benefit the livelihoods, especially in the under development regions; and the authentic down to earth experiments into productivity as well as the Intellectual property transformation is the perfect path to deploy offline and online resources building the effective production and supply chain to integrate industries by intellectual's critical innovation.

Keywords: Straw Hat University; Farmer's Professor; Rural Transformation; Targeted poverty alleviation in China

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1. Introduction

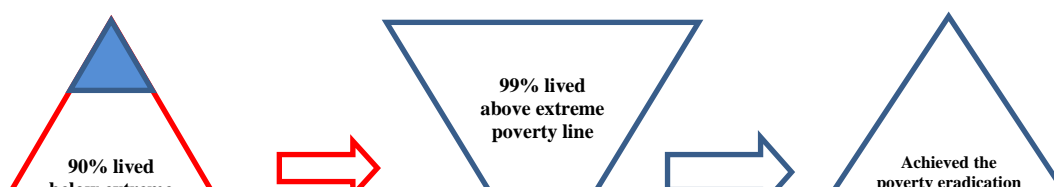
With three-decade poverty reduction plus another five-year targeted poverty alleviation making above 98,990,000 rural population (covers 832 impoverished counties and 128,000 poor villages) out of extreme poverty in 2020 on schedule despite of turbulent influence after COVID-19 pandemic, China is the first developing country to achieve the poverty eradication target set by the UN 2030 Agenda for SDGs (Sustainable Development Goals) 10 years in advance which Chinese President Xi Jinping announced on February 25 of 2021. The Administrator of the United Nations Development Programme (UNDP) Achim Steiner (2021) said "China's pathway and choices that it has taken are both in quantitative terms and in policy lessons learned very valuable, and deserve also recognition for the way that it has made the eradication of poverty a national priority". Under the concerted efforts of the whole nation, many top-to-down approaches which effectively targeted the poverty alleviation are emerging; and the intellectuals involved and initiated brand new modules are no exception.

1978   **2018**   **2020**

Figure 1. Pyramid of Poverty in China (1978-2020)

2. Chinese Intellectuals' Serving the People Tradition

Dating back to the Spring and Autumn period of Chinese history, the Sage Confucius or named Sage Kong's *Confucian Analects* (*Lun Yu*, complied by the students of Confucius between 540BC-400BC), which was one of the four Confucius Classics, marked that "When the man in office has an abundance (of energy) he studies; when the studious man has an abundance he goes into office" (Confucius, 1933). For more than 2000 years, Confucianism dominated Chinese culture and society; and Chinese intellectuals was the faithful transmitter bearing the ideology of diverse Confucian ideas in their values and social life so as to constitute the organizational norms to devote themselves for the state and serve the people.

Mencius (372-289 B.C.), another sage second only to that of Confucius in the Confucian tradition, mentioned the food security on the need for grain storage as "*When the grain is so abundant that even dogs and swine eat the food of man, you [the government] do not make any collection for storage. When there are people dying from famine on the roads, you do not issue the stores of your granaries for them, but blamed the famine on bad weather.*"(Irene Bloom, 2011). The Ever-Normal Granary System first established for price control and Famine relief in 54 B.C., during Han dynasty in Chinese history under this guideline. Zhu Xi (1130-1200), a great philosopher, politician, historian, calligrapher, and writer in the Southern Song dynasty, introduced Communal Granary System to reduce sufferings in famine years. And Huan-Chang Chen obtained his Ph.D. at Columbia University in 1911 with the Dissertation named "Economic Principles of Confucius and His School", which discussed ancient Chinese intellectuals' governance role on poverty reduction. (Emerson Niou, 2013)

Entered in to the modern society, it is the Chinese intellectuals devoted themselves to share the weal and woe of the establishment and development in China as a socialism nation with Chinese characteristics, who also was defined as Organic Intellectuals to increase the soft power at large. (Tan Yong, 2019)

3. China' Rural Transformation

Poverty issue in China with no doubt is that mainly a rural phenomenon (World Bank, 2001; Meng, 2013). The long existed dual economic structure in China's urban and rural areas makes the great changes and increasing gaps between these two sides. Since China's opening up to the world in 1978, the East Coastal Areas have entering into a fast-track development of economic and society; while the rest parts, usually called the Central and West areas, have lagging behind the national development with lower GDP and poorer livelihoods. Consequently, rural poverty alleviation in Central and West China have become the priority of the whole nation and dedicated specific institution named State Council Leading Group Office for Poverty Alleviation and Economic Development in Backward Areas（SCLGOP） for mobilizing and implementing all-around comprehensive policies and measures on poverty reduction as well as coordinating with other individuals and organizations; Intellectuals, especially the experts on rural issues, are welcomed and introduced to overcome these kinds of difficulties. Many pilot projects and case studies are encouraged to these backward areas to explore the suitable and precise approaches so as to promote and share to the whole nation as unique experience and recipe. Under these kinds of stimulus and cooperation, an increasing number of tried and tested poverty alleviation has emerging.

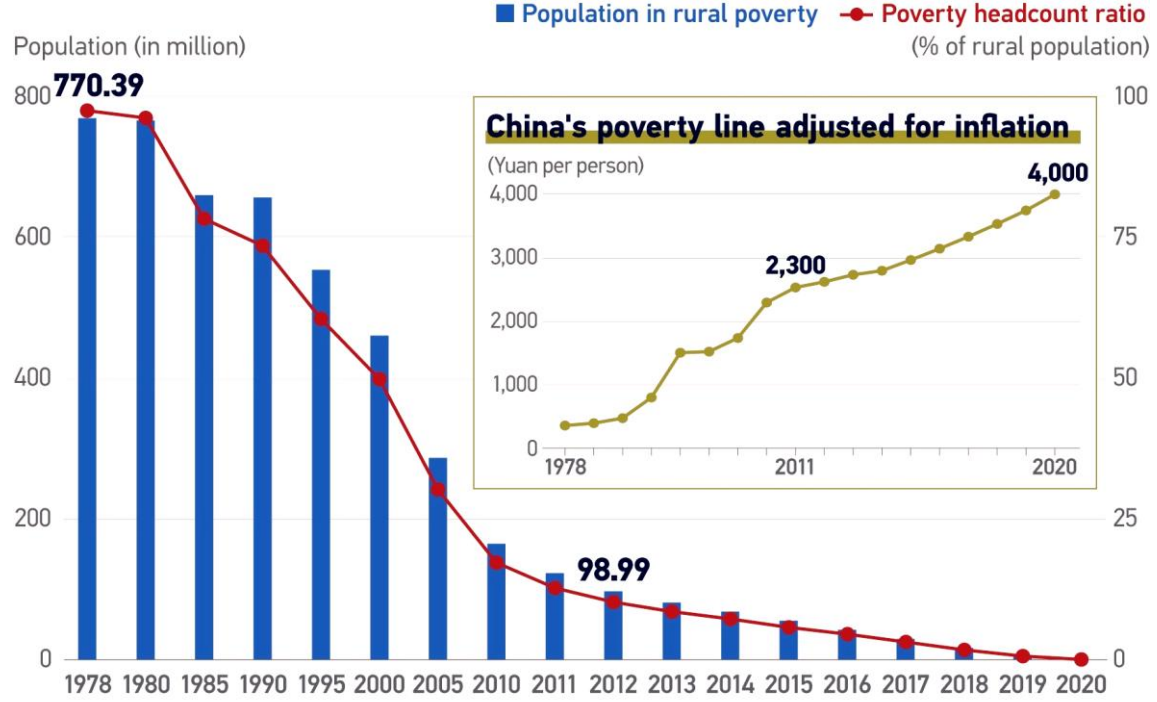



Figure 2. Poverty reduction in China: national poverty line (1978-2020), which was set at an annual income of 2,300 RMB in 2010, and was adjusted for Purchasing Power Parity (PPP)

Sources: China's National Bureau of Statistics, SCLGOP.

4. Poverty Relief Cadre System in China

Chinese authorities are engaged in the fight against extreme poverty on multiple fronts to implement the poverty reduction in three hierarchies as state, provincial and local level. Annually released NO.1 Document from the Central government on rural development gives a full play on the guidelines; governments in all levels are required to follow the poverty-relief work and rural revitalization tasks. China's State Council Leading Group Office of Poverty Alleviation and Development coordinates institutions and organizations in different areas and various levels to mobilize the qualified cadre to initiate or join the anti-poverty projects in need, with the fully aids from the local government. This cadre system forms a comprehensive and dynamic structure to accept the all kinds of talents to the development-oriented poverty alleviation as the national movement at large.

A large number of cadres are accepted in the primary-level organizations in rural communities to investigate questions, trace back the roots, research the solutions, deploy the community participation and solve the problems. They are working with the Identity as Poverty Relief assistant, vice village head, Deputy Country executive, specialized technician and etc.

Entered into the critical phase of poverty reduction in China, the intellectuals' obvious effect was pronounced. In 1999, the first batch of specialized technician was called in and sent to the front line of anti-poverty rural area in Nanping, China's southeast Fujian province. And China's Ministry of Science and Technology implemented the pilot poverty reduction projects in Ningxia Hui Autonomous Region and other four remote northwest provinces in 2002 (Wu Yue hui, Yu Sinan, 2021). Therefore, increasing intellectuals, including specialized technicians, scientists, academicians, professors, experts, researchers, are emerging during the battle to poverty in China.

5. Chinese Intellectuals' rural poverty alleviation practice

By "seeking truth from facts" and "crossing river by touching stepping stones", which are the essence of China's reform and opening up experience summarized by its chief architect Deng Xiaoping, many scientists and experts are encouraged to do the authentic down-to-earth researches and projects around the vast rural areas; and their title was courteously called as "Farmer's Professor" by the local people and elsewhere.

Originally, "Straw Hat University" is just the nickname of a Chinese social media WeChat group set up by a 56-year-old technician and Cadre named Liu Xiao on May 26 of 2019, which give technical guidance to more than 400 farmers wearing straw hat and attending the training of a planting base for organic vegetables in Liulin county of North China's Shanxi province, hence the name was popular and spread by the internet. After the outbreak of COVID-19, Mr. Liu Xiao recorded 20-episodes videos about planting techniques from selecting seeds and plastic films to preventing insect-borne diseases in dry land lasted for 20 hours and broadcasted on Chinese live streaming platform Kuaishou, which attracted more than 100,000 viewers around the whole country to learn and practice; and his dedication moved and impacted many volunteer teachers and experts to join this virtual university, such as Yuan Kangping, a professor from China's renowned Zhejiang University. Their invention of Relay Intercropping in Strips technique tripled the earnings from the vast dry fields in China's backward areas. (Sun Ruisheng; Zhou Huiying, 2019). Ever after, this concept was defined as all the rural poverty alleviation modules and activities initiated and/or implemented by "Farmer's Professor".

6. Materials and Methods

The method used was descriptive method by case study approach to sort out the formation and operation on "Straw Hat University", and explore the functions and roles of "Farmer's Professor" in rural poverty alleviation to unveil the correlation among the individuals, organizations and government. This study used a qualitative approach. Data and obtained from documents, books, journals and other mass Chinese media and relative online data have no exception. All the data described and analyzed is responded to the research questions systematically and purposefully. The research design was analyzing existing data (both text data and numeric data) by discourse analysis, content analysis, textual criticism, historical studies and secondary data analysis.

The case studies in this research take a close look at the most remarkable poverty alleviation actions by intellectuals' strategies, participatory governance and management associated with "Straw Hat University" transition to explore the mechanism and efficacy in context of the whole nation at large.

7. "Farmer's Professor" with Milestone "Straw Hat University" Cases in China

7.1. Food Safety solved by Father of Hybrid Rice---Yuan Longping

Food is the unchangeable top priority of human being, and also the critical indicator for poverty evaluation. For thousands years, all nations on the earth are paying great attention to the cropping environment such as irrigation system, natural hazard prevention, and pest management to make sure the yield from the fields, which could not meet the numerous needs from the increasing population. As a populous country with more than 1 billion people, food safety is much crucial in China which haunted the authorities and scientists.

This is the priority why Yuan Longping entered Southwest Agriculture College (Now the Southwest University in Chongqing Municipality) to learn Genetics and Breeding in 1949, the year People's Republic of China has been just established under all difficulties. As the first batch of graduates cultivated by China's own tertiary education system in 1953, He realized the potential of super hybrid rice to food safety and poverty alleviation so as to make the decision to devote himself to the course of hybrid rice breeding which costs him two decades on success.

Yuan Longping's hybrid rice breeding technology has greatly increased the yield and become the first Chinese case of intellectual property rights transferred into United States in 1979. And he was invited as United Nation FAO chief consultant in 1991 to promote the hybrid rice globally.

After his continuous endeavor to fulfilling the hybrid rice potential with his team, The yield of "super rice" hit a new record of 1,026.7 kg per mu (about 15.4 t per ha) in 2014. This marvelous achievement which promoted to the whole country makes Chinese per capita yield as 470 kg in 2019 compared to only 209 kg in 1949 by 126% increase rate.

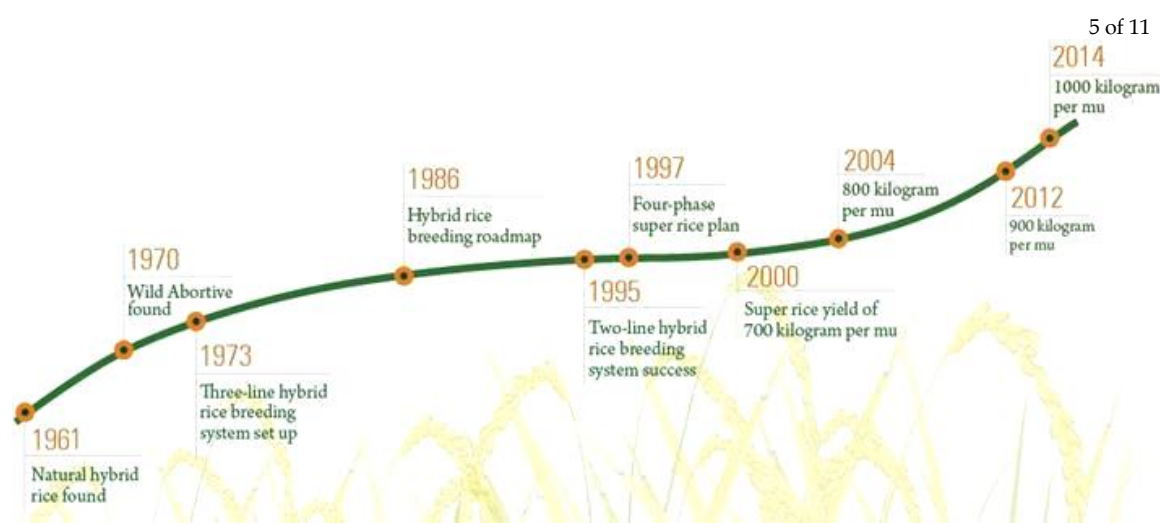



Figure 3. Hybrid rice breeding research and development supervised by Yuan Longping in China

 Sources: Science Bulletin (Xiaoling Yu, 2015)

However, Yuan Longping's ultimate goal program extends to the salt-waterside and his "Sea Rice Project" also named saltwater-tolerant rice aims to 100 million hectares (1.5 billion mu) of saline-alkali land as arable land reserve for the whole country. The trial planted on the Qaidam Basin of the Qinghai-Tibet Plateau for the first time with 6.7 hectares (100 mu) and later beyond during the spread of COVID-19 pandemic (Liu Caiyu, 2020). On 40th World Food Day, 16 October 2020, The Qingdao Saline-Alkali Tolerant Rice R & D Center reported the average yield of "Sea Rice" has reached 500 kilograms per mu (0.06 hectares). This project could bring 40,000 tons of rice each year if all the saline-alkali soil has been fully exploited.

To promote his experience and transfer the intellectual property rights, Yuanlongping Agriculture Hi-tech Co (LongPingGaoke) headquarter was setup in Changsha City (Central China's Hunan Province) on 30 June of 1999 and listed on China's Shenzhen Stock Market (SZSE:000998) at the same day. Subsequently, its branches penetrate into the areas or countries where needs the "Supper Rice", which also becomes the supply chain in "Straw Hat University".

In his 90s, Yuan Longping still steps to the fields with straw hat for investigating and researching farmer's income increment, although his hybrid rice has bridged the urban-rural gaps to some extent. His hybrid breeding "Supper Rice" has greatly increased the yield from the fields and profoundly accelerated the poverty eradication in China which feed all Chinese people by their own efforts in autarky.

It is expected that by 2030, grain production capacity in China will have increased to 800 million tons, with actual output of more than 750 million tons while the per capita supply of grains in China will have increased to about 600 kilograms, which close to the average for middle and high-income countries. (Wang Xiaodong, 2020)

Table 1. Yuan Longping's poverty relief contribution

Name	Yuan Longping (袁隆平 Born: Sep. 07, 1930)
Title	Agronomist; Academician of Chinese Academy of Engineering (CAE); International member of National Academy of Sciences, USA; Honorary board director of Yuanlongping Agriculture Hi-tech Co.
Honor	China's State Pre-eminent Science and Technology Prize (2000) , World Food Prize (2004) , Wolf Prize in Agriculture state medals (2004), China's Reform Pioneer Medal(2018)
Specialty	Plant thremmatology; hybrid rice breeding

Breakthrough	Developing the first hybrid rice varieties in the 1970s (yield potential above 13.5 t/ha) by conventional breeding method plus biotechnology
Achievement	Solve the food security problem in China and transfer the hybrid rice to the worldwide developing countries

7.2. Bridge regional development gap with collaborative partnership initiated by Lin Zhanxi's Juncao Invention

The regional development imbalance is a critical development problem which heavily impacts the poverty relief. Since the mid-1980s, regional disparity has become wider than before1980, and the relative regional disparity coefficient declined from 32.8 to 28.7 between the late 1970s and the early 1980s which increased from 28.8 in 1985 to 33.6 in 1992.

With the fast economic growth in eastern coastal areas since the reform and opening up to the world, the western inland areas especially the remote backward regions are lag behind since most of the rural poor reside in the remote and mountainous terrain of the central and western provinces. Under the "No one was left behind to the well-being society" requirement against such a regional-gap backdrop from the central government, China starts the unprecedented East-West regional collaborative partnership since 1996 to promote the balanced development among governmental, organizational, institutional and individual levels. The east parties are responsible to dispense and train the surplus labors from the west, and then seeking the cooperation opportunities in the west together so as to establish the peculiar industrial chain under the concerted "Straw Hat University" working module around the whole country.

Poverty Relief Partnership between East Fujian Province and West Ningxia Hui Autonomous Region is the best example to demonstrate the bridge regional gap process. Fujian is an affluent coastal province while Ningxia locates in the water-deficient and the veld-like saline-alkali areas; there seems no any much commons in cooperation. All changed by Lin Zhanxi, a professor from Fujian Agriculture and Forestry University (FAFU), and his creative idea to replace the timber as culture substrate for cultivation of edible and medicinal fungi by various herbaceous plants. He borrowed 50,000 RMB in 1980s to do the research on grass variety selection by tertiary system screening method. Dicranopteris pedata as first success was identified to substitute the formal timber based edible and medicinal fungus cultivation line in 1986. For decade effort, 46 species of fine grasses were screened and bred to cultivate 54 mushroom species, then defined as Juncao in November 1996 to describe Herbaceous plant that ca n be used as the culture substrate for cultivation of edible and medicinal fungi on human beings' vegetable protein need; and strengthen China as the world largest country with effective mushroom production an supply chain on cultivation and consumption respectively; and him was named "The Father of JUNCAO".

Poverty alleviation by developing JUNCAO technology and industry was introduced to Ningxia in 1998, which benefits 17,000 households, increases income around 28 million USD, and provides 22,800 job opportunities.

JUNCAO itself can be used directly as feed for animals, such as cattle, pig, geese, sheep, deer, fish, etc. Beside, JUNCAO can be used for desertification control soil erosion, collapsed hills management. Its ecological effect is widely applied in the Yellow River basin and sandy desertification land. There are three major advantages of JUNCAO industry as follows.

First, high productivity of land in short cycle and low cost with the efficient use of solar energy, land and water three agricultural resources;

Second, high biotransformation efficiency by comprehensive cycle utilization of the plants, fungus and animals in sustainability;

Third, active ingredients in high content of JUNCAO medicinal mushrooms accelerates tight link of the economic, ecological and social benefits. (Zhou jing, 2020)

Besides, Professor Lin Zhanxi markets the yield with his team to the vast populous cities in the eastern provinces to fulfill the supply chain in order to sustain the earnings.

JUNCAO industry is conducive to ecological security, food safety and energy security with the

advantages of high yield, high quality, high efficiency, safety, ecology, sustainable development. Such actions are not only eradicating poverty in western areas but also improving the environment as the enhancement of sustainable development coordinated by the regional balance. JUNCAO technology was extended to 85 developing countries,   translated into 15 languages with 53 international training projects in the world.

Table 2. Lin Zhanxi's poverty relief contribution

Name	Lin Zhanxi (林占熺 Born: Dec. 16, 1943)
Title	Mycologist; Chairman of China National Engineering Research Center of JUNCAO Technology.
Honor	Geneva State Prize at the 20th International Invention Exhibition (1992) Prize of French Ministry of Interior and Land Planning in the 85th Paris International Invention Exhibition (1992) World Ecological Safety Award (2013) China's National Awards for Poverty Alleviation (2016)
Specialty	Mycology; Juncao technology
Breakthrough	Juncao can be used as culture medium instead of woods for edible (medicinal) Fungi, grass species preventing soil erosion & ameliorating line-alkali land, and new energy resources.
Achievement	Solve the medium problem of artificial cultivation on edible (medicinal) Fungi by Juncao to produce mushroom protein forage and introduce its technology to the other developing countries, such as Papua New Guinea, Rwanda, Fiji and South Africa.

7.3. Income increase mechanism in minority areas innovated by Zhu youyong's cropping season adjustment

Minority people in China, who comprise about 8% of total population and 56 ethnic nationalities, are largely concentrated in remote, mountainous areas in the northwest and southwest regions. Yunnan is the most diverse inland province in Southwest China with 25 minorities and complex geography ranging from chill snow mountains to lush tropical forests; on the other words, these regions are the high poverty incidence areas with lower income ethnic minority's population, where could not easily to mirror the universal experience.

Targeted poverty alleviation (TPA) therefore was proposed by Chinese authorities after president Xi Jinping investigating the minority difficulties in 2013 and setting the pilot project in Wumeng Mountain (a Area of High Poverty Density mainly in Yunnan) on the new year of 2015, which emphases accurate poverty identification, appropriate prioritization of projects, and efficient implementation to ensure that concerted assistance reaches all of the poverty-stricken villages and households and indeed aim at the housing problem.

No one else could better understand the truth of TPA than Zhu Yongyong, grew up in the rural Yunnan's Honghe prefecture, and entered in Yunnan Agriculture University (YNAU) for Plants Conversation study and research since 1997. He realized that Yunnan was one of the provinces with a wide range of areas affected severely stricken by poverty for historical and natural reasons posing great difficulty in poverty alleviation work.

Based on his investigation and research on environmental diversity, Zhu Youyong initiated tailored proposals with different geographic areas. Their experiments varied in areas like dry-cold river valleys, dry-hot river valleys and winter cropping regions in Yunnan to cultivate peculiar agricultural industry with notoginseng, vinenary, lemon and winter potatoes to the local minority communities. He testified Intercropping approach could improve field microclimates, decrease the incidence of crop diseases, and increase crop yields.

The most successful experiment occurred at Haozhiba Village of Lancang County in Pu'er neighbouring Myanmar, where Zhu Youyong stationed since 2015 in his 60s in accordance with China's poverty alleviation arrangements between the Chinese Academy of Engineering and this far-flung only Lahu people autonomous county in China.

According to only dry season and monsoon season all the year around with resource constrained remote and mountainous areas which totally different from elsewhere, all the team members are required to learn the local language from Lahu people to know the real needs so as to match the suitable crops oriented to the market. Upon his arrival, Zhu noticed that the scarcity of rain and the absence of frost in the area were suited for planting winter potatoes which widely produced like maize for daily consumption as well as vegetables; once planted by year end, they can be harvested right after China's Spring Festival in peak selling season. Therefore, the ecological cropping plan is emerging with the traditional Chinese medicine (TCM) plants notoginseng under the diverse woods and the winter potatoes in the idle tropic-valley fields, which later helping each hectare of forest yield TCM worth 900,000 to 1.2 million RMB a year and an acre of idle land makes over another 10,000 yuan ($1,550) in three months' time which totally changes barren, desolate lands into money-generating bases.

The next year, many villagers flocked to the spot for the potato-planting training program that Zhu had started classes to teach farmers relevant technologies for ethnic groups in border areas. However, all their classes are in the field and taught them hand by hand in the "Straw Hat University". Each training course ran about half a year and after finishing the course, all the farmer students could shake off poverty after yielding. Magnificently, more than half these students helped their own relatives and friends out of poverty, which means 10 percent villagers brought the entire village out of poverty.

To sell the potatoes, Zhu Youyong made every effort, even promoted Lancang winter Potatoes in the capital city Beijing's Great Hall of the People. During the spread of COVID-19 pandemic in 2020, the e-commerce was applied to extend the market. On the Chinese live streaming broadcast platform of Pinduoduo, Zhu cooked a potato dish with pan and spatula by himself in front of the camera to promote the newly yielded 25 tons potatoes on April 7 of 2020 and all sold out in one hour with more than 1 million viewers surprisingly. Meanwhile, his students participated in the live streaming as well to demonstrate the famous and excellent regional products. Zhu's Peddling "look! The potato in my hand has shallow bud eyes, bright skin and big mass" and Academician's smile touched many netizen.

This kind of Precise Poverty Alleviation module was later enhanced as "Authority-Entrepreneur-Experts-Villager" partnership to transfer the intellectual property effectively into productivity and help more ethnic groups out of poverty. His ideal objective is bridge the knowledge gap between academic and fields through "Straw Hat University" to foster the professional farmers in the ethnic minorities' areas with sci-tech training programs.

Under the concerted efforts with about 194,700 Poverty relief assistants as well as 48,500 village officers, Yunnan declared in 2020 that the last 88 impoverished regions are out of poverty thanks to the precise poverty alleviation.

Table 3. Zhu Youyong's poverty relief contribution

Name	Zhu Youyong (朱有勇 Born: Nov. 16, 1955)
Title	Plant pathologist; Academician of Chinese Academy of Engineering (CAE) ; Honorary president of Yunnan Agriculture University(YNAU)
Honor	China's Role Model of the Times Award(2019) China's Advanced individual in Poverty Alleviation (2021)
Specialty	Plant Conservation
Breakthrough	Crop diversity by mixed planting (intercropping) in situ, on-farm conservation; Multi season agricultural products on Yunnan-Guizhou Plateau.
Achievement	Initiate the ecological approach on cropping pattern instead of pesticide and agricultural chemical. Precise Poverty Alleviation.

8. The role of "Farmer's Professor" and the "Straw Hat University" Mode

The "Farmer's Professor" initiated "Straw Hat University" is but not only a kind of technology-led poverty reduction action. Educated by the serving the people tradition, deep understanding on the need from the impoverished people and their community, investigation and research with the technician members, collaboration with the Poverty relief assistants and local village officers, Equipped with the experimental facilities by their own institutions or universities, "Farmer's Professor" is more like the icebreaker, planner, accelerator, organizer, practitioner as well as the coordinator to conduct the comprehensive poverty alleviation actions with full play of the "Internet plus" so as to establish the virtual and real world combined "Straw Hat University" for effective intellectual property transformation into productivity by all-around production and supply chains. This mode not only accelerated the poverty relief course to fulfill the SDGs in the world, but also found the tried and tested Approach to Alleviate Poverty in China and beyond.

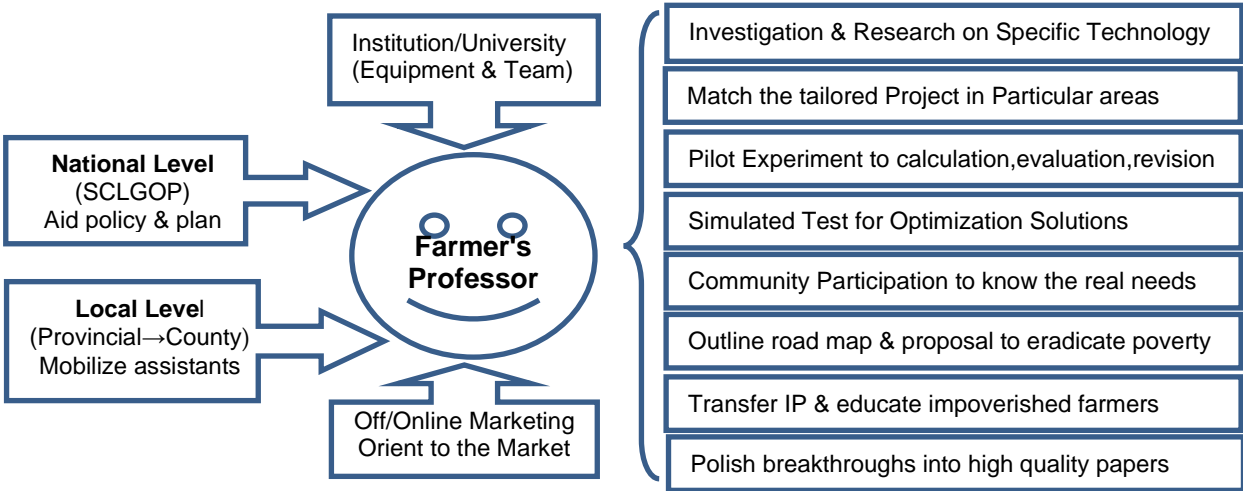



Figure 4. Tried and Tested "Straw Hat University" Poverty Alleviation Mode

Through these crucial steps by the "Farmer's Professor" and their colleagues, China has made great leaps in reducing poverty and reaching the benchmarks laid out in the Initiatives that allow rural residents to participate in tech based rural revitalization and e-commerce for next to no fees are set up to ensure the expansion of businesses so as to create a more favorable environment for investment and goods sales. One the one hand, the profession farmers are increasing and they are more eager to education for themselves and their descendants which lay the solid foundation of "Straw Hat University"; on the other hand, "Farmer's Professor" could try the best to do the authentic down to earth research on effective academic transformation and induce high-quality papers of breakthroughs on the earth.

According to Chinese Ministry of Science and Technology, the central government of China

has allocated a total of 2.14 billion RMB since 2014 to cultivate sci-tech personnel in former revolutionary base areas, ethnic minorities areas, border areas and impoverished areas, training a total of 20,000 people to initiated the "Straw Hat University" mode, which greatly help to achieve the poverty eradication target at the critical stage. (Wu Yuehui, 2021)

In the front line of the fight against poverty, there are thousands of science and technology personnel like "Farmer's professor" who promote scientific achievements to villages, spread their knowledge to rural households and bring theories into practical action; they have made indispensable contributions under the concerted efforts in China's great poverty alleviation.

9. Conclusion

The "Straw Hat University" initiated by "Farmer's professor" mode is an emerging tried and tested approach during the national course on alleviate poverty supported by the all nation and motivated by the intellectual's "Serve the people" tradition. It is also a dynamic process due to varied areas and diverse people with distinguished Chinese characteristics contributing the universal experiences as follows.

First, under the poverty relief context, many human beings' development problems, especially in the under development regions, are magnified as the target for research; which are the most significant domain as well in the world to breakthrough and provide valuable opportunities for the intellectuals.

Second, the concerted efforts from all levels create perfect research environment for "Farmer's professor" like researchers and could easily change the down to earth experiments into productivity as well as the Intellectual property transformation.

Third, the real and virtual combined "Straw Hat University" make full use of all the offline and online resources to build the effective production and supply chain under China's "Internet Plus" Action to integrate industries.

Besides, "Farmer's professor" is the most innovated role to deploy all kinds of talents and inventions into the perfect position so as to do precise research transition into fast productivity benefiting the livelihoods of human being and shed the light on scientific research as its own function

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