

From colonialism to cooperation: the training of tropical agricultural experts in Florence (1908-1968)

RICCARDO DE ROBERTIS

University of Teramo, Italy

Corresponding author: ric.derobertis@libero.it, rderobertis@unite.it

Submitted on 2019, 10 December; accepted on 2019, 22 December; Section: Reviews

Abstract: From the late nineteenth and twentieth centuries the agricultural sciences acquired a role of primary importance in the colonial scientific system. The main European powers engaged themselves in the training of its technical experts on tropical and sub-tropical agriculture to be sent mainly in government agencies and on the farms of the corresponding African and Asian territories. Despite a somewhat reduced colonial system, Italy was no exception. The new capitalist colonization project in Eritrea promoted by the governor Ferdinando Martini in the early twentieth century, it urged his first technical agrarian consultant, Gino Bartolommei Gioli, to give life to a technical-scientific center at the service of colonial, emigration and agricultural initiatives: the Istituto Agricolo Coloniale Italiano in Florence. The educational activity was the fulcrum of the institution that over time became the undisputed national center dedicated to training of middle and upper level technicians for overseas. The purpose of this study is to follow the creation, development and operation of the Florentine school, as well as its contribution to the training of numerous professionals specialized in tropical agriculture in relation to the different stages of Italian agricultural colonization in Africa and, ultimately, in the context of the new overseas projection of Italy in the fifties and sixties.

Key words: Italian colonies; tropical agriculture; colonial agricultural school; agrarian technicians.

Introduction

If some of the young people who study agriculture in Italy, to occupy a very modest position, instead set off for our colonies or where numerous Italians congregate equipped with adequate knowledge, with the plan to set up agricultural or industrial enterprises of various kinds, then we could say we have solved a big problem. [They] will direct our emigrants to new homes, they will pave the way for easier Italian colonization, and in addition to this, greater guarantees and more encouragement towards commitment will result in capital from them, today fearful of certain companies for which we do not have real skills capable of taking over the management¹

¹ G. Bartolommei Gioli, *L'agricoltura in Eritrea. Relazione al Regio Commissario Civile Straordinario*, Roma, Tip. Camera dei Deputati, 1903 p. 120.

These were the words which the Tuscan agronomist Gino Bartolommei Gioli had to reconsider when, in 1904, he decided to set up the Istituto Agricolo Coloniale Italiano in Florence: a scientific and educational centre responsible for the study of tropical agriculture and the training of related specialists². The IACI's scope of responsibilities, officially founded in 1907, extended not only to the Italian overseas possessions, but also to the so-called 'free colonies', especially in Latin America, where a large amount of Italian emigration was concentrated in those years.

It was an institution, as its founder often emphasized, «destined to open profitable positions for agrarian *technicalism*»³ and to become over time the main centre of formation for most of the personnel, of different levels, destined for the Italian colonies' agrarian services in Africa, and was created to support the various colonization policies that liberal governments and then the fascist regime imposed in Eritrea, Somalia, Libya and, for a short time, in Ethiopia⁴.

At the beginning of the twentieth century colonial education took its first steps and began to be promoted by expansionist circles as an integral part of the movement for scholastic modernization and, obviously, the driving force for a renewed colonial action⁵. Gioli was one of the main protagonists, making himself the spokesman for a relaunch of a scientific and professional technical culture: an indispensable basis for an expansionist policy focused on the development not only of overseas agriculture⁶ – but also of industry and commerce. Therefore, Italy also had a need to train a substantial group of tropical agriculture experts according to models already existing abroad. In Belgium specific courses were held at the educational institutes of Antwerp and Vilvoorde and the Dutch and French schools (of different levels) of Wageningen and Nogent sur-Marne were added to the already notable *Deutsche Kolonialschule* in Witzenhausen⁷.

² Florentine agronomist, Gino Bartolommei Gioli (1876-1949) had been the first agricultural adviser to the governor of Eritrea Ferdinando Martini between 1901 and 1902. In 1901 Gioli spent six months in the field studying the colony's agricultural nature and conducting research on cotton cultivation. From 1907 was Director General of IACI up to 1917 when he had to resign the directorship for health reasons. He remained on the Board of Trustees of Institute until his death in 1949.

³ Id., *L'attività dell'Istituto Agricolo Coloniale Italiano nell'anno 1910. Relazione del Direttore al Consiglio di Amministrazione*, in «L'Agricoltura Coloniale», a. V (1911), n. 4-5, pag. 231.

⁴ See A. Del Boca, *Gli italiani in Africa Orientale*, 4 voll. Roma-Bari, Laterza, 1976-1984; Id., *Gli italiani in Libia*, 2 voll. Roma-Bari, Laterza, 1986-1988; N. Labanca, *Oltremare. Storia dell'espansione coloniale italiana*, Bologna, Il Mulino, 2002.

⁵ G. Monina, *Il consenso coloniale. Le società geografiche e l'Istituto coloniale italiano (1896-1914)*, Roma, Carocci, 2002. On agrarian education in Italy, see: M. P. Bidolli, S. Soldani (ed), *L'istruzione agraria 1861-1928*, Roma, MBCA, 2001.

⁶ G. Bartolommei Gioli, *Ordinamento degli studi agricoli e commerciali in rapporto alla politica coloniale*, in *Atti del Congresso Coloniale Italiano in Asmara, settembre-ottobre 1905*, Roma, Tipografia dell'Unione Cooperativa Editrice, 1906. See also in the same congress: Id., *L'azione coloniale dei tempi recenti e gli ostacoli per la nostra espansione all'estero*.

⁷ See M. Kleiche, *La Professionnalisation des agronomes coloniaux français: l'École de Nogent, 1902-1940* in R. Waast, Y. Chatelin, C. Bonneuil (ed.), *Les Sciences hors d'Occident au XX^e siècle*, vol. III *Nature et environnement*, Paris, ORSTOM Éditions, 1996; Id., *Des agronomes pour l'Empire ou l'École nationale supérieure d'agriculture coloniale (1902-1939)*, in *Les enjeux de la formation des acteurs de l'agriculture 1760-1945*, Actes du Colloque ENESAD, 19-21 janvier 1999, Dijon, Educagri édition, 2000; B. Simon, "Brève rétrospective de l'enseignement agricole colonial en France des origines aux indépendances", *Ibidem*; H. Maat, *Science cultivating practice: a history of agricultural science in the Netherlands and Its Colonies, 1863-1986*, Dordrecht, Kluwer Academic Publishers, 2011; E. Baum, *Daheim und überm Meer. Von der Deutschen Kolonialschule zum Deutschen Institut für Tropische und Subtropische Landwirtschaft in Witzenhausen*, Witzenhausen: Deutsches Institut für Tropische und Subtropische Landwirtschaft GmbH Witzenhausen, 1997.

From practice to theory: the formation of the first overseas technicians (1908-1924)

The IACI came into full swing only at the end of 1908, when a one-year «theoretical and practical course in Colonial Agriculture» began, and with the collaboration of related scientific and educational institutions in the city such as the Istituto Botanico, the Stazione di Entomologia Agraria and the Scuola di Orticoltura⁸. The school proposed «the training of good theoretical and practical farmers» and to bestow «necessary concepts to every good director of colonial cultivation»⁹; which is why, among the various subjects, ‘colonial agriculture’ remained central with its many hours of lessons and practical exercises, giving a good representation of the nature of a course open to young people coming from practical schools¹⁰.

Through continuously updating teaching methods, Gioli tried to raise the level of the school in which he understandably did not want to limit himself to only producing cultivation coordinators but to the creation of real ‘agricultural experts’, especially considering the new colonial agricultural horizons that had opened up following the conquest of Libya¹¹.

Thus, in 1913, thanks to the most substantial financial supports from the new Ministero delle Colonie, the course became biennial: to the «preparatory» one was now added a «complementary» one of the same duration, to which direct access was given (in addition to the students who had attended the first year), to the graduates of the technical Institutes’ schools of surveying and agronomy and the young graduates of special agricultural schools of the Kingdom of Italy such as those of Alba, Conegliano, Catania and Avellino¹². It was essentially a practical course, so of the thirty hours of teaching per week, almost half were used in practical exercises¹³.

In fact, a privileged role was assigned to the field of education that allowed teachers to evaluate «the moral and physical attitudes» of the students. «Training» in the countryside was in fact considered of extreme importance for the psycho-physical training of the future technician, which would have allowed him to adapt

⁸ The 13 students enrolled were given lessons in colonial agriculture, colonial botany, economic geography and the history of colonies, colonial livestock and their hygiene, technological chemistry, elements of colonial engineering, valuation and accounting, hygiene and first aid and foreign languages: *Programma per l'anno scolastico 1908-09*, «L'Agricoltura Coloniale», a. II (1908), n. 3, pp. 195-199; *Atti dell'Istituto Agricolo Coloniale Italiano*, in «L'Agricoltura Coloniale», a. II (1908), n. 5-6, cit., pp. 378-379.

⁹ G. Bartolommei Gioli, *L'Istituto Agricolo Coloniale Italiano nei primi 18 mesi della sua attività*, in «L'Agricoltura Coloniale», a. IV (1910), n. 1, p. 54.

¹⁰ G. Mangano, *Programma del corso di Agricoltura coloniale svolto dagli allievi dell'Istituto Agricolo Coloniale Italiano*, Firenze, Stab. Tip. Ramella & C., 1910, pp. 3-8.

¹¹ See: N. Labanca, *La guerra italiana per la Libia. 1911-1931*, Bologna, Il Mulino, 2012.

¹² Istituto Agricolo Coloniale Italiano, *Norme regolamentari per il Corso ordinario teorico-pratico di Agricoltura Coloniale*, Firenze, 1914.

¹³ Id., *Programmi didattici del Corso ordinario teorico-pratico di Agricoltura Coloniale*, Firenze, 1914. The subjects of the first year remained colonial agronomy, colonial botany, general geography, applied mathematics, geology and mineralogy, general zoology, physics, chemistry and French. The complementary course instead included comparative and colonial agriculture, colonial product technology, economy of colonial companies, phytogeography and pathology of colonial plants, rural knowledge applied to colonies, economic geography, colonial hygiene and first aid, colonial livestock management, specialized colonial zoology, history and colonial legislation, French and a second language chosen from English, Spanish and Arabic.

more easily to climatic and environmental discomforts, as well as to the difficulties in working in tropical and subtropical countries¹⁴.

The field experience was held in different Tuscan locations, from Casentino to Maremma, where technical and field instructions were given with both daytime and night-time marches¹⁵. In a period that ranged from fifteen to thirty days, the future technicians were engaged in expeditious surveys of topography, levelling, tachometry, topographical tracking of routes, roads and canals, map reading, and the collection, conservation and shipment of agricultural material. At the end of the internship and after a theoretical and practical examination, the IACI issued a «Diploma di Agronomo Coloniale»¹⁶.

Given a didactic structure which required students to reside in Florence, the scholarships granted by various credit institutes and by the Ministry of Agriculture were of particular importance, as they inferred not only the guarantee of a greater number of enrolled students, but also the arrival of young people from many Italian regions, immediately giving a national air to the school¹⁷.

In 1921 the duration of the course was extended to three years in order to give more space to exercises that were more relevant to the development of new practical activities. The 'work experience' should therefore have taken place in even more organized farms that would have allowed the young students to follow their organization and management, focusing on the various agricultural applications (rural knowledge, cultivation, livestock, valuation, accounting, rural industries, product handling) and in the operation of the new agricultural machinery that began to be used also overseas, such as, for example, motor and steam agricultural machines¹⁸.

The difficulty of finding substantial landowners in favour of making their land available each year made it feel necessary for the school to have its own farm, the lack of which «represented the greatest defect of the Institute», according to the words of the new and longest serving director Armando Maugini¹⁹, considering the impossibility of having students practice in the nearby Mediterranean colony²⁰. The limited financial

¹⁴ Id., *Regolamento per l'esecuzione del campo di istruzione*, Firenze, 1915, p. 3.

¹⁵ *Campo d'istruzione dell'Istituto Agricolo Coloniale Italiano*, in, «L'Agricoltura Coloniale», a. V (1911), n. 9; *Campo d'Istruzione in Casentino*, in «L'Agricoltura Coloniale», a. VI (1912), n. 9-10; *Campo d'istruzione in Maremma*, in «L'Agricoltura Coloniale», a. VII (1913), n. 8.

¹⁶ Istituto Agricolo Coloniale Italiano, *Norme regolamentari per il Corso ordinario teorico-pratico di Agricoltura Coloniale*, cit., pp. 10-12; Id., *Statuto fondamentale e regolamento generale per il funzionamento dell'Istituto*, II edizione, Firenze, 1915, articolo n. 76.

¹⁷ *Concessione di borse di studio*, «L'Agricoltura Coloniale», a. III (1909), n. 5, p. 367; *Concorso a borse di studio presso l'Istituto Agricolo Coloniale Italiano per l'anno scolastico 1911-12*, «L'Agricoltura Coloniale», a. V (1911), n. 10, pp. 459-460; *Atti dell'IACI*, «L'Agricoltura Coloniale», a. XIII (1919), n. 8, p. 320. In the early years, pupils with subsidies were sometimes more than half of those enrolled: *Atti dell'IACI*, «L'Agricoltura Coloniale», a. V (1911), n. 12, pp. 529-530. The scholarships were even decisive in resuming education after the forced interruption due to the World War. The school year 1917-18 consisted of 7 members, of which 6 had scholarships: ASAICSF, *Processi verbali*, t. II, 16 December 1917.

¹⁸ A. Ferrara, *Relazione sull'attività dell'Istituto Agricolo Coloniale Italiano negli Esercizi 1922-23 e 1923-24*, IACI, Firenze, 1925 p. 14-15; *L'azienda agraria per il tirocinio pratico degli allievi del Corso teorico-pratico di agricoltura coloniale*, «L'Agricoltura Coloniale», a. XVII (1923), n. 8, pp. 304-306.

¹⁹ Armando Maugini (1889-1975) graduated in Bologna in 1912. In the same year, he joined the IACI in Florence as young assistant in chemical-technological laboratory. During the World War I, in september 1918 he was sent to Libya to organize the cereal and the hay campaigns that had been entrusted to the military. Between 1920 and 1924 he was head of the Agricultural Services of Cyrenaica and eventually Director General of IACI for forty years (1924-1964).

²⁰ ASAICSF, *Verballi delle adunanze della Giunta Esecutiva*, 23 April 1925.

possibilities of the institute went hand in hand with the scarce attention on the part of a colonial administration which was also very distant on similar issues. Thus, despite repeated attempts, field practice was always confined to Tuscany until the end of the colonial era, managing however, to set up a farm in Poggio a Caiano in the mid-1930s²¹.

After the first four years of teaching, the IACI has given the diploma to 41 students (two thirds of enrolled students), managing to place 16 of them in some South American, Asian and European agricultural companies and industries, and 8 in the Italian colonies²². But from the following year hiring suffered a downturn due to the economic stagnation that occurred above all in South America²³ and to the subsequent pre-war mobilization, which, obviously, did not allow the posting of other 'specialized' youths, either in agricultural services or in private agricultural enterprises²⁴. Moreover, the scarce Italian capitalist-agrarian interests overseas significantly reduced employment possibilities for the pupils, who since the first post-war period, could only count on a few firms such as, for example, *Pirelli* for the cultivation of rubber in Java and Malaysia and *Gossypium* for cotton crops in Anatolia²⁵. The lack of public or private companies in need of technical personnel was accompanied by considerable foreign competition. As early as the beginning of the twentieth century, in addition to the educational institutions of the European colonial powers, the schools (and/or courses) in the United States of America, Canada, Australia or South Africa specializing in tropical agriculture were also numerous and for the most part also well organized, as Gioli himself had recognized when presenting his parallel Italian project²⁶.

In France, where the institute of Nogent sur Marne already existed, since 1908 the colonial cotton association, through its vice-president Charles-Auguste Marande, had created a practical school in Havre in order to prepare the multi-purpose second level technical staff for the large agricultural, industrial and commercial enterprises of the empire²⁷. Four years later, also in Holland, a school of colonial agriculture of the

²¹ *Atti dell'IACI*, in «L'Agricoltura Coloniale», 1928, n. 9; 1932, n. 6; 1934, n. 8; CDI-AICSF, c. 35, f. 1585: M. Vidotto, *Corso per esperti agrari in prova dei ruoli tecnici dell'Africa Italiana. Campo di Bonistallo*, agosto 1940.

²² Of the 8 students hired in the colonies, 6 went to Eritrea (5 in agricultural services and 1 in the Cotton Cultivation Society) and 2 to the Experimental Agricultural Office in Mogadishu: G. Bartolommei Gioli, *Relazione morale del Direttore al Consiglio di Amministrazione dell'Istituto Agricolo Coloniale Italiano per l'anno 1912-1913*, Firenze, IACI, 1913, pp. 5-6.

²³ At the end of 1914, 22 former students were placed overseas, i.e. only one more than the previous year: Id., *Gli studi di agricoltura coloniale e l'opera dell'Istituto Agricolo Coloniale Italiano*, in International Association for Tropical Agriculture, *Transactions of the Third International Congress of tropical agriculture. Held at the Imperial Institut, London, S.W. June 23 to 30, 1914*, vol. I, London, 1915, p. 25; see also: Id., *Relazione Morale del Direttore per l'esercizio 1913-14*, «L'Agricoltura Coloniale», Firenze, 1914, n. 10.

²⁴ R. Perini, *Le industrie italiane e l'Istituto Agricolo Coloniale Italiano*, Firenze, IACI, 1919, p. 5.

²⁵ By 1924, Pirelli had 5 former alumni of the institute, while 3 had been hired in Anatolia, respectively two at Gossypium and one at Società Sviluppo Industrie. Only one technician joined the Italo-Abyssinian Society in English East Africa and two joined the West African Society in Angola: N. Mazzocchi Alemanni, *Relazione Morale sull'attività dell'Istituto dal luglio 1919 al dicembre 1920*, Firenze, IACI, 1921, p. 11; A. Ferrara, *Relazione sull'attività dell'Istituto Agricolo Coloniale Italiano negli Esercizi 1922-23 e 1923-24*, pp. 17-18.

²⁶ G. Bartolommei Gioli, *Come l'Italia debba promuovere lo sviluppo agricolo delle colonie*, pp. 11-16.

²⁷ L. Morando, *L'enseignement colonial en province (1899-1940) : «impérialisme municipal» or réussites locales?*, «Outre-Mers. Revue d'histoire», t. 91, n. 342/343, 2004, pp. 281-283; C. Malon, *Le Havre colonial de 1880 à 1960*, Publications des Université de Rouen et du Havre-Presses universitaires de Caen, 2006, pp. 385-394.

same level as the Florentine one was founded, in Deventer to be precise, while Witzenhausen continued to offer agrarian experts for the tropics despite the fact that Germany was now without colonies²⁸.

The institute's management was therefore very careful not to exceed the average number of enrollments and to use a strict selection process with its students, given the disproportion that would have arisen between the graduates and the ability of non-European countries to absorb them; in consideration, moreover, of the limited space offered by the agrarian services of the Italian colonies that were going through a serious period of uncertainty, while waiting for a definitive reorganization²⁹.

During the first post-war period up until 1924, the Florentine body was able to send only 4 technicians, 3 to Cyrenaica in Libya and only one to the Italo-Somali agricultural company (SAIS) engaged in the industrial cultivation of cotton and sugar beet. At the same time, the only safety valve was represented by the Italian possessions in the Aegean where in a few years 15 young people were sent, mostly engaged in land valuation, by virtue of the direct commitment of the IACI to the construction of the agricultural services of Rhodes³⁰.

Table 1 - Number of graduates placed, 1909-1940.

YEARS	GRADUATES	PLACED AMONG GRADUATES	PERCENTAGE OF PLACED AMONG GRADUATES
1909-1918	59	24	41 %
1919-1924	59	35	59 %
1925-1932	104	35	34 %
1933-1940	117	95	81 %
Total	339	189	56 %

Source: Calculation and processing by *Schedario degli alunni diplomati e specializzati dell'Istituto Agricolo Coloniale Italiano (1909-1954)*.

The IACI «School of Colonial Agriculture» in the Twenties and Thirties

During the twenty years of Fascism, the IACI found itself following a range of models of colonization that the regime perpetuated or activated in the different territories, in the same period and even in the same colony. While in East Africa an effort was made with difficulty to develop a modern capitalist plantation agriculture, such as that linked to cotton farming in the plain of Tessenei in Eritrea and in the district of Genale in Somalia. In Libya the 'agrarian development' moved from the capitalist phase initiated by the governor Giuseppe Volpi

For statistical data on the school in the early 1930s, see: E. Prudhomme, *L'Ecole pratique coloniale du Havre*, in *Comptes Rendus du Congrès de l'enseignement colonial en France (28-29 septembre 1931)*, «Outre-Mer», a. III, n. 3 (special), septembre 1931, pp. 353-357.

²⁸ H. Maat, *Science Cultivating Practice*, cit.; E. Baum, *Daheim und überm Meer*, cit.; W. Sandler, *Colonial education in the Third Reich: the Witzenhausen colonial school and the Rendsburg colonial school for women*, «Central European History» 49(2), 2016.

²⁹ In this regard, see: N. Mazzocchi Alemanni, *L'agricoltura nella politica coloniale*, Tripoli, Stab. Arti Grafiche, 1919.

³⁰ Id., *Relazione Morale sull'attività dell'Istituto dal luglio 1919 al dicembre 1920*, p. 11; A. Ferrara, *Relazione sull'attività dell'Istituto Agricolo Coloniale Italiano negli Esercizi 1922-23 e 1923-24*, cit., pp. 17-18.

in the early 1920s to the state demographic of the following decade³¹. Within this scenario and in a closer relationship with Rome, the Florentine institute, already transformed in 1924 into a body governed by public law under the control of the Ministry of the Colonies³², was destined to gradually increase its functions starting with the didactic one whose growth coincided precisely with the 'imperial' phase of the Fascist regime.

In 1925 a real «School of Colonial Agriculture» was established which included a «Course for colonial agriculture start-ups» lasting two years (i.e. the old theoretical-practical course for the graduates of practical agricultural schools, middle or high schools) and another of 16 months aimed at the «specialization in Colonial Economics» reserved for land surveyors and surveyors, who, following work experience and final exams, received a diploma in specialization in the agrarian economies of tropical and subtropical countries, but without legal value until 1933-34³³.

The new system exactly matched that which was desired and proposed by the new director of ICAI and the main agricultural agrarian technician of Italian colonialism - Armando Maugini, who wanted to further raise the level of a school that wanted to focus less and less on the 'intellectual proletariat' graduates from the beginning of the century, to open itself also to young people from higher social backgrounds and from the rural upper classes, also, of an overseas agricultural colonization characterized by many self-trained farmers and artificially supported by governments, as in Tripolitania in Libya and in particular in the Somali district of Genale.

As the director specified in 1928:

We must succeed in convincing the bourgeoisie to push a part of the youth towards colonial agricultural studies. Presently almost all of the young people who attend the Institute have no financial means and often, at the end of their studies, go in search of a modest job. Agronomists who instead had financial resources could go to our colonies or foreign ones, do their work experience and then invest part of their own wealth³⁴.

But Maugini's aspirations inevitably remained such given the incapacity of the regime to mobilize a substantial number of private interests towards its African possessions, from which, moreover, there was no satisfying news³⁵.

³¹ C. Segrè, *Fourth Shore. The Italian Colonization of Libya*, University of Chicago, 1974; I. Taddia, *L'Eritrea-colonia 1890-1952*, Milano, Franco Angeli, 1986; F. Cresti, *Non desiderare la terra d'altri. La colonizzazione italiana in Libia*, Roma, Carocci, 2011; N. Labanca, *Oltremare*, cit.

³² Royal Decree 991 of 15 May 1924; converted into Law 1455 of 20 July 1925.

³³ In the 16 months of the course lessons were given in: general and special agriculture, agricultural economics, Phytogeography, agricultural plant pathology, hygiene in tropical countries, rural engineering, history and legislation of the colonies, agricultural technology, a foreign language, special zoology, physical education.

³⁴ A. Maugini, *L'Istituto Agricolo Coloniale e la preparazione dei tecnici*, in «l'Oltremare», a. II (1928), n. 5, p. 182. The same concept was repeated a few years later: Id., *Riunioni di orientamento sui problemi agricoli delle Colonie italiane*, «L'Agricoltura Coloniale», a. XXIV (1930), n. 1, p. 5.

³⁵ In 1929 the financing of a scholarship by the Benghazi Chamber of Commerce in favour of children of Italian landowners was destined to remain an isolated initiative: *Bando di concorso per la concessione di una borsa di pratica Agraria anno scolastico 1929-30*, in «Notiziario Economico della Cirenaica», 1929, pp. 177-179; A. Maugini, *Un'utile iniziativa della Camera di Commercio, Industria ed Agricoltura di Bengasi*, «L'Agricoltura Coloniale», a. XXIII (1929), n. 2, pp. 45-47.

At the same time, the Florentine school's efforts to improve the education of its students were constant, although they were aware of the inevitable difficulties, typical of every overseas educational centre, of always producing graduates capable of offering immediate positive results in the workplace:

This task is far from mild, considering that the success of the graduates may depend on very many circumstances and that in colonial occupations quality of character, energy, balance, initiative, physical and moral resistance, adaptation are required etc., in quantities often required in greater measure in respect to European agricultural situations. These are also qualities that unfortunately are not always easy to recognize in a classroom setting³⁶

Due to these realistic considerations the lack of traineeships in the colonies was sorely felt and also, in a particular way, the lack of a serious program of «professional start-up», strongly desired by IACI since 1919 in order to allocate the best students, for at least a year, in government services or various private companies. The establishment of short-and long-term scholarships would have been the best solution to test students' resistance to fatigue, discipline and spirit of sacrifice, which are the fundamental requirements of the future technician, according to the opinion of the teaching staff, while at the same time facilitating their placement³⁷.

The requests presented by the Florentine body, however, almost always remained unheard in Rome, nor was it ever in the colonial governments' interests in starting a serious and coordinated program in this regard. From the mid-1920s there were only isolated and sporadic initiatives, due to the institution's relations with some farms or colonial governments. For example, in 1926 the Government of Cyrenaica allocated five scholarships for professional training lasting twelve months but two years later the scholarships had fallen to three: two offers from the SAIS in Somalia and one from the Azienda De Micheli in Tripolitania³⁸. In 1935, IACI Commissioner Luigi Bongiovanni again complained about the «continuously small» figure that even tended to shrink, so much so that the rare financing that the Florentine school received was given by the Ente di Colonizzazione della Libia (Body for the Colonization of Libya)³⁹: a body created in support of state colonization started in the Fourth Shore in 1933 and of which Maugini was the principal technical consultant⁴⁰.

Shortly thereafter, the conquest of Ethiopia and the proclamation of the fascist empire⁴¹ would change the

³⁶ Id., *L'Istituto Agricolo Coloniale e la preparazione dei tecnici*, p. 180.

³⁷ N. Mazzocchi Alemanni, *Relazione morale sull'attività dell'Istituto dal luglio 1919 al dicembre 1920*, p. 9. In the summer of 1924, the ministerial commissioner Alessandro Bartolini-Salimbeni (who in July had attended the qualifying exams) also drafted, in vain, a report addressed to the Ministry of the Colonies recalling the importance and the need to bestow the professional start-up grants from the colonial governments and the Commissariat for Emigration, indispensable for a complete professional preparation of future technicians and, not least, to ensure the placement of the best students who came out of the Florentine school. The report is quoted in: A. Ferrara *Relazione*, pp. 15-16.

³⁸ A. Maugini, *L'Istituto Agricolo Coloniale Italiano e la preparazione dei tecnici*, p. 181; IACI, *L'Istituto Agricolo Coloniale Italiano dalle sue origini ad oggi. Brevi note sul suo funzionamento*, cit., p. 7. See also: *Atti dell'IACI*, «L'Agricoltura Coloniale», a. XXI (1927), n. 8; A. Maugini, *Relazione al Consiglio di Amministrazione*, in «L'Agricoltura Coloniale», a. XXII (1928), n. 1, p. 38.

³⁹ L. Bongiovanni, *Relazione sulla gestione commissariale a S. E. il Ministro delle Colonie*, Firenze, IACI, 1935, p. 19.

⁴⁰ F. Cresti, *I primi anni di attività dell'Ente per la Colonizzazione della Libia attraverso i documenti del suo archivio*, in N. Labanca e P. Venuta (ed), *Un colonialismo, due sponde del Mediterraneo. Atti del seminario di studi storici italo-libici (Siena-Pistoia, 13-14 gennaio 2000)*, Pistoia, CRT, 2000; Id., *Non desiderare la terra d'altri*, cit.

⁴¹ R. Bottoni (ed), *L'impero fascista. L'Italia e l'Etiopia (1935-1941)*, Bologna, Il Mulino, 2009; N. Labanca, *La guerra d'Etiopia 1935-1941*, Il Mulino, Bologna, 2015.

fate of the IACI. In July 1938 the institute comprised of «a state body, with administrative, scientific and disciplinary autonomy, answering to the Ministry for Italian Africa», assuming the name of Regio Istituto Agronomico per l'Africa Italiana⁴². Thus, it became the scientific and technical body of the Ministry of Italian Africa in the field of agricultural research and experimentation, as well as the preparation centre for all second-level technicians headed for the colonies.

Thanks to the reform of the empire's agricultural institute and services, in 1938 the school finally obtained the desired recognitions, with the foundation of an «Department of Agricultural specialized in colonial agriculture», whose certifications assumed full legal value in that they were issued by a directing institution structured according to the laws of technical education⁴³. Therefore, Florence should have prepared the future managers of medium-sized farms or the helpers of the directors of large colonial farms, together with the surveyors and experts of the new agricultural services. The educational direction remained however unchanged. With the exception of a slightly greater space given to theoretical lessons, the study programs were roughly the same, except for the introduction of the teaching of construction and rural drawings related to new technical functions outlined following the colonization policy in Libya and in AOI⁴⁴.

From 1909 to 1945 just under four hundred young people from all over Italy left the institute, although almost half from Tuscany alone, and mainly from the province of Florence⁴⁵.

It was a fairly obvious disproportion and only on a superficial level could it seem to diminish the national character of a school that obliged students to reside in the Tuscan capital, above all for a specialized preparation in a field of study that was beginning to enjoy greater attention following the international economic crisis in 1929 and the regime's colonization policies in Africa of the 1930s, starting with the demographic in Libya⁴⁶.

Faced with the halt of transoceanic emigration, the few Italian agricultural enterprises operating abroad and, above all, with a colonialism characterized by the limited participation of private capital, the professional

⁴² Royal Decree 2205 of 27 July 1938 and Law 727 of May 1939. The Ministry of the Colonies (set up on 20 November 1912) became the Ministry of Italian Africa by Royal Decree 431 of April 1937.

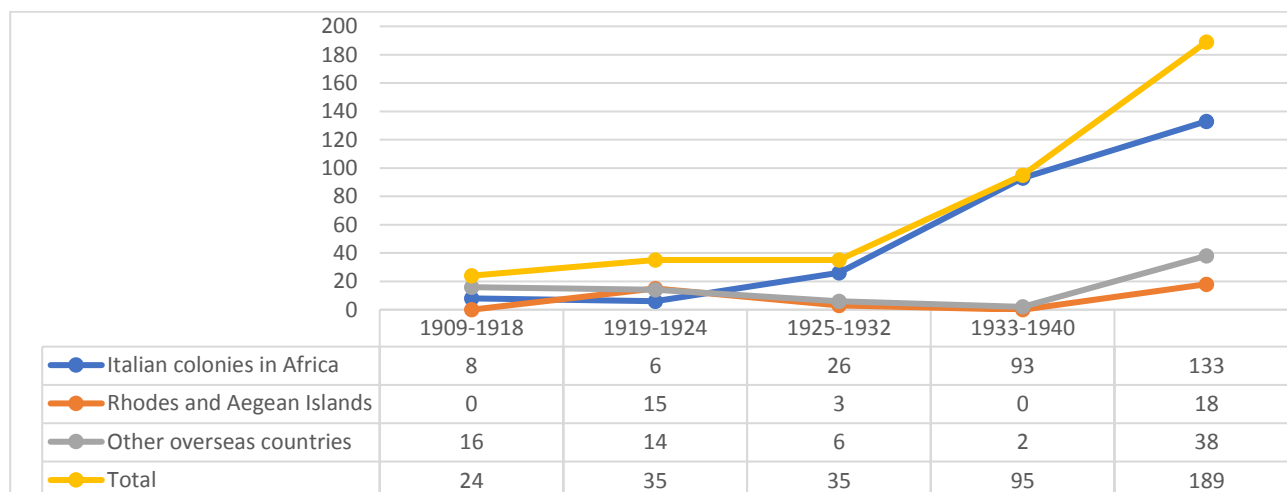
⁴³ The department included an annual specialization course in colonial agriculture to which agrarian experts from the non-specialized technical institutes and a two-year advanced technical institute course with specialization in tropical and subtropical agriculture for those who had graduated to the third year of the Agricultural Technical Institute: Istituto Agronomico per l'Africa Italiana, *Istituzione e Statuto della Sezione agraria di Istituto tecnico superiore specializzato nell'agricoltura coloniale*, Firenze, Stab. Tip. Ramella, 1940.

⁴⁴ *Ibidem*; Istituto Agronomico per l'Africa Italiana, *Statuto, orari, programmi della Sezione agraria di Istituto tecnico superiore specializzato nell'agricoltura coloniale*, Firenze, Stab. Tip. Ramella, Firenze, 1941.

⁴⁵ ASAICSF, *Schedario degli alunni diplomati e specializzati dell'Istituto Agricolo Coloniale Italiano (1919-1954)*.

⁴⁶ From the results of the calculation made directly on the register of graduates and specialised: of the 384 pupils, 170 (44%) came from Toscana; 29 (7.5%) from the other regions of Central Italy (Umbria: 10, Lazio: 12, Marche: 7); 77 (20%) from the South and the Islands (Campania: 10, Abruzzo-Molise: 8, Puglia: 16, Basilicata: 7, Calabria: 7, Sicilia: 18, Sardegna 11); 87 (22, 6%) from the North (Emilia Romagna: 23, Lombardia: 21, Veneto: 15, Trentino: 9, Friuli Venezia Giulia: 9, Piemonte: 8, Liguria 2). 11 were Italian children born or in any case coming from various American, North African, Mediterranean or European countries; 2 from the colonies (Cyrenaica), 1 from Ethiopia. Of the other 7, the origin is not reported. ASAICSF, *Schedario degli alunni diplomati e specializzati dell'Istituto Agricolo Coloniale Italiano (1919-1954)*.

outlet for experts in tropical agriculture remained undeniably linked to the economic presence of the State, perhaps even more than it was for colleagues operating in Italy⁴⁷.



Source: Calculation and processing by *Schedario degli alunni diplomati e specializzati dell'Istituto Agricolo Coloniale Italiano (1909-1954)*.

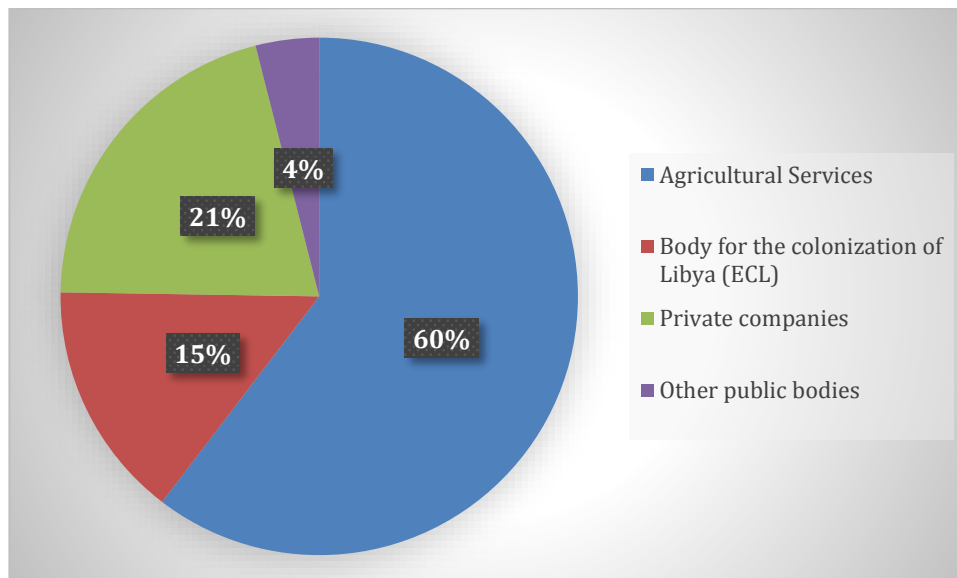
Figure 1 - Number of graduates placed by geographical area of destination and by years, 1909-1940.

In Tripolitania and Cyrenaica, three years after the first demographic settlements there were 41 former students of the Institute⁴⁸; largely hired on behalf of the ECL, which in 1939, despite the greater flow of technicians in the colony following the general reform of agricultural services in Italian Africa, absorbed more than half of those sent to Libya⁴⁹.

⁴⁷ See: L. D'Antone, *L'«intelligenza» dell'agricoltura. Istruzione superiore, profili intellettuali e identità professionali* and C. Fumian, *Gli agronomi da ceto a mestiere*, in P. Bevilacqua (a cura di), *Storia dell'agricoltura italiana in età contemporanea*, vol. III, Venezia, 1991.

⁴⁸ IACI, *Notizie sull'Istituto Agricolo Coloniale Italiano* di Firenze, Firenze, Tip. G. Ramella & C., 1936, p. 5.

⁴⁹ See: R. De Robertis, *Un patrimonio fondamentale: le fotografie e i documenti conservati presso l'Istituto Agronomico per l'Oltremare relativi alla Libia coloniale*, in N. Labanca (a cura di), *Terre e lavori dalla Libia coloniale*, Firenze, IAO-MAE, 2015, p. 51; from a calculation made by the list of students reported by G. Falorsi, *L'Istituto Agricolo Coloniale Italiano*, «L'Agricoltura Coloniale», a. XXXIII (1939), n. 3, pp. 168-193.



Source: Calculation and processing by *Schedario degli alunni diplomati e specializzati dell'Istituto Agricolo Coloniale Italiano (1909-1954)*.

Figure 2 - Percentage of graduates placed by employment sector (1909-1940)

The subsequent intensive colonization of the 'Fourth Shore' launched by Italo Balbo in the late 1930s and the conquest of the vast and fertile regions of Ethiopia opened the doors of the colonies to institute graduates and colonial agronomists in general, in the context of that excessive dilation of the colonial staff (administrative and technical) that represented one of the characteristic traits of fascist colonialism⁵⁰, and following the urgent revision of the entire agricultural technical apparatus of the colonies, until then very precarious and characterized by a constant lack of personnel (Figure 1-2).

The 'superior' courses for agricultural science graduates

Education in colonial agriculture aimed at agrarian graduates followed a non-linear path characterized by numerous obstacles and interruptions, remaining without a precise institutional point of reference until the end of the 1930s.

For a new institution like the Florentine one, the idea of a postgraduate course failed to materialize immediately, both for economic issues and for the limited knowledge acquired (also in the collections of materials) of the different tropical agricultural environments⁵¹. But the desire to make the national agricultural

⁵⁰ N. Labanca, *L'amministrazione coloniale fascista. Stato, politica e società*, in A. Del Boca, M. Legnani, M. G. Rossi (a cura di), *Il regime fascista. Storia e storiografia*, Roma-Bari, Laterza, 1995; C. Giorgi, *L'Africa come carriera. Funzioni e funzionari del colonialismo italiano*, Roma, Carocci, 2012.

⁵¹ In fact, the two students of the first middle-level courses intending to continue their studies went to Nogent sur Marne or to the Belgian school of Gembloux: *Primo elenco dei soci dell'Associazione fra i Licenziati dell'Istituto Agricolo Coloniale Italiano*, «L'Agricoltura Coloniale», a. VII (1913), n. 6; G. Bartolommei Gioli, *Relazione morale del Direttore al Consiglio di Amministrazione dell'Istituto Agricolo Coloniale Italiano per l'anno 1912-13*, cit., p. 5.

environment aware of the economic fortunes of the colonies, prompted director Gioli to undertake initiatives aimed at preparing agricultural and veterinary graduates interested in tropical activity. A 'course' in veterinary pathology was thus organized in 1913, in favour of doctors in zoology⁵², and a course in Colonial Agriculture in 1914 which was reduced to orientation and propaganda lessons⁵³. The beginning of the World War I did not allow the giving of continuity to the project, which reappeared in 1920 in view of a restructuring of the colonial (especially Libyan) agrarian services, but then collapsed again⁵⁴.

The few places available in the technical and experimental apparatus of the colonies, together with foreign competition that reduced the chances of placement even in the medium and large agricultural enterprises of other overseas countries, did not make tropical educational training attractive. In fact, not even the Istituto Superiore Agrario di Portici - which since 1914 provided the technical leaders of the agricultural services of Tripolitania - could managed to give continuity to the two courses organized in the 1920s⁵⁵.

In 1933, with the beginning of the demographic colonization policy in Libya, Florence transformed the propaganda "conferences" into "Higher colonial agriculture courses", but after almost twenty years the course and the educational level of these courses remained essentially same. The "teachings" were given along the lines of the previous ones (1914 and 1920), based on "conversations" inherent to particular colonial themes, for the duration of two and a half months. Members attended a series of reports presented by IACI staff and various university professors on specific subjects ranging from agriculture to anthropology, from botany to engineering and law⁵⁶.

They were therefore distant from the training models of the other European colonial powers, centred on actual two-year or three-month courses structured in special higher-level institutions: from the school of Nogent sur Marne in Paris and the Dutch one in Wageningen, to the important Imperial College of Tropical Agriculture of Trinidad, from which came the directors of the agrarian services of the British Empire⁵⁷.

Even in this case, neither the Ministry of the Colonies nor the governments of Libya, Eritrea and Somalia responded positively to the technical call for financial support for scholarships abroad and trips to the colonies

⁵² *Corso di Patologia veterinaria tropicale sotto la direzione del professore A. Lanfranchi: 15 settembre-14 ottobre 1913*, in *Atti dell'IACI*, «L'Agricoltura Coloniale», a. VII (1913), n. 6.

⁵³ *Corso superiore di agricoltura coloniale*, in «L'Agricoltura Coloniale», a. VII (1913), n. 5; *Inaugurazione del Corso Superiore d'Agricoltura Coloniale*, in «L'Agricoltura Coloniale», a. VIII (1914), n. 2.

⁵⁴ *Corso Superiore Accelerato di Agricoltura Coloniale*, in «L'Agricoltura Coloniale», a. XIV (1920), n. 2-3.

⁵⁵ Istituto Superiore Agrario di Portici, *Il R. Istituto Superiore Agrario di Portici. 1872-1928*, Spoleto, Arti grafiche Panetto & Petrelli, 1928, pp. 313 and 339-340.

⁵⁶ In total, about two hundred hours of theoretical lessons were given followed by possible practical exercises: IACI, *Corso Superiore di Agricoltura Coloniale (16 gennaio-31 marzo 1933)*, Firenze, 1933. Sometimes enrolled students took advantage of "educational trips" to agricultural offices, farms, oil mills, nurseries and experimentation camps in Tripolitania and Cyrenaica: simple excursions guided by officials of the Institute with the aim of introducing the specialists to the reality of the economic and technical problems connected to the agriculture of the Mediterranean colony: *Atti dell'IACI*, in «L'Agricoltura Coloniale»: a. XXVIII (1934), n. 5; a. XXX (1936), n. 4; a. XXXI (1937), n. 5; O. Marilli, *Una gita di istruzione nella Libia Orientale del Corso di specializzazione in Agricoltura coloniale*, in «L'Agricoltura Coloniale», a. XXXIII (1939), n. 11.

⁵⁷ J. M. Hodge, *Triumph of the Experts. Agrarian doctrines of development and the legacies of British colonialism*, Ohio University Press, 2007; M. Kleiche, *Des agronomes pour l'Empire ou l'École nationale supérieure d'agriculture coloniale (1902-1939)*; H. Maat, *Science cultivating practice: a history of agricultural science in the Netherlands and Its Colonies, 1863-1986*.

- as was the practice, however, in the British, French and Dutch colonial systems⁵⁸ - with the result of expanding the times of adaptation to work in the tropics also of future service technicians. The IACI was able to benefit only from a scholarship made available in 1936 by the Italo Somala Agricultural Society, consisting of a trip to and a stay of seven months at the Somali company⁵⁹.

The three-month long courses continued until 1938 when, following the reform of the agrarian services, the institute had the task of preparing the heads of the sections and laboratories of the empire's technical-experimental apparatus. The birth, in 1935, of the Faculty of Agriculture at the University of Florence favoured this ministerial disposition with which Maugini stipulated an agreement that established a separate course in tropical and subtropical agriculture there. «As a sign of the new times», the scientific review of the institute specified with satisfaction, «crowning the work of the University of Florence with the progress of colonial science which constituted the fundamental body of Italian African Studies»⁶⁰.

Thus, arose a real course for graduates specializing in Agriculture and Forest Sciences which lasted six months, but with programs and teaching criteria in substance not unlike the previous ones. The numerous enrolments due to the notable increase in posts in the agricultural services of the empire meant that the Florentine body could declare in 1942 that it had "created" two hundred young graduates⁶¹.

Table 2 - Number of post-graduate specialists placed, 1914-1940.

YEARS	POST-GRADUATE SPECIALISTS	PLACED AMONG POST-GRADUATE SPECIALISTS	PERCENTAGE OF PLACED AMONG POST-GRADUATE SPECIALISTS
1914-1935	72	11	15 %
1936-1940	85	49	58 %
Total	157	60	38 %

Source: Calculations and processing by *Schedario degli alunni diplomati e specializzati dell'Istituto Agricolo Coloniale Italiano (1909-1954)*.

⁵⁸ See: A. Trotter, *Per un insegnamento superiore di agronomia coloniale in Italia*, «L'Agricoltura Coloniale», a. XXVI (1932), n. 7.

⁵⁹ *Borse per Dottori del Corso Superiore*, in «L'Agricoltura Coloniale», a. XXX (1936), n. 2, p. 80.

⁶⁰ R. Ciferri, *L'ambiente biologico dell'Africa Orientale Italiana. Prolusione al Corso di specializzazione coloniale per Laureati in Scienze Agrarie, dettata a Firenze il giorno 31 gennaio 1938-XVI*, in «L'Agricoltura Coloniale», a. XXXII (1938), n. 2, p. 49.

⁶¹ Of these, 51 were operating in the colonies: IAAI: IAAI, *Il R. Istituto Agronomico per l'Africa Italiana*, p. 11. In 1940 the IAAI also organized a specialization and training course for agricultural inspectors on probation of the "Colonial Agricultural Corps" lasting three months.

Table 3 - Number of post-graduate specialists placed by geographical area of destination and by years, 1914-1940.

YEARS	PLACED AMONG POST-GRADUATE SPECIALISTS IN ITALIAN COLONIES IN AFRICA	PLACED AMONG POST-GRADUATE SPECIALISTS IN OTHER OVERSEAS COUNTRIES	TOTAL
1914-1935	11	0	11
1936-40	48	1	49
Total	59	1	60

Source: Calculations and processing by *Schedario degli alunni diplomati e specializzati dell'Istituto Agricolo Coloniale Italiano (1909-1954)*.

The Institute and its school in the new international political scene (1945-1968)

The wartime defeat of the fascist regime, with the consequent collapse of the empire, put an end to the Italian colonial rule in Africa. The institute of Florence found itself acting inevitably in the new context of projecting to overseas for this democratic republican Italy by now in a different relationship with Rome from the past. The institute was immediately included in the orbit of the Ministry of Foreign Affairs and changed its name to the Agronomic Institute for Overseas in 1953: the year in which Italy decided to abolish the old Ministry of Italian Africa.

Over a period of twenty years, it passes from colonization in Africa to International , agricultural cooperation, going through other, no less demanding, phases that occupied the officials of the institute from the late 1940s until 1960: agricultural emigration managed by the State in Latin America and the very delicate decade of the Italian trusteeship administration of Somalia (AFIS).

The high unemployment of the immediate post-war period drove the Italian governments to consider peasant farmer emigration again as a partial solution to the problem and the gaze turned above all to the countries of Latin America. At the same time, the useless political-diplomatic battle undertaken by Italy for its return to the former colonies, had the sole result of obtaining from the United Nations the trusteeship administration of Somalia for a decade (1950-1960)⁶². The AFIS was to represent the delicate transition from colonialism to cooperation: it was the only case in which Rome was directly involved with the process of decolonization of its old territories⁶³.

Technical assistance to Italian peasant farming communities in Latin America and the Middle East as well as support for the agricultural development of the Somalian territories along with what remained of the colonization in Libya, was allowed to send several ex-colonial agronomists and, at the same time, some new Florentine school leavers which initially managed to maintain a constant number of members, of graduates and specialists, with a didactic system in continuity with the past⁶⁴. In 1954, one hundred former students of

⁶² See: A. Varsori, *L'Italia nelle relazioni internazionali dal 1943 al 1992*, Roma-Bari, Laterza, 1998; N. Labanca, *Oltremare*, cit.; A. Del Boca, *Gli italiani in Africa Orientale. Nostalgia delle colonie*, Roma-Bari, Laterza, 1984.

⁶³ See: A. M. Morone, *L'ultima colonia. Come l'Italia è tornata in Africa, 1950-1960*, Laterza, Roma-Bari, 2011.

⁶⁴ From 1946 to 1953: 125 graduates from the ordinary courses and 37 specialized from the course for post-graduates: ASAICSF, *Schedario degli alunni diplomati e specializzati dell'Istituto Agricolo Coloniale Italiano (1909-1954)*.

the institute, graduates and agricultural experts worked abroad⁶⁵ but from there in a few years the rapid change in the world political landscape, marked by the great process of decolonization, it would have reversed the trend and changed the image of the same school of Florence.

With the 1962 reform, IAO officially became the advisory body and assistance for the Ministry of Foreign Affairs in the agricultural technical-scientific field. Thus, began a new path for the Florentine institution, now projected within the framework of international development cooperation that in the sixties saw a rivalry between the agricultural sector and related programs. The contraction in the number of members, in the courses for doctors in agriculture and forestry as well as those reserved for agricultural experts - reported Maugini as early as 1961 - was corresponding with the minor presence of Italian agronomists in tropical countries⁶⁶, which were starting to have their own workforce, mostly trained in European, specialized, teaching centers within technical assistance programs. Through the AFIS experience the institute had already started to open up to Somali students, the sudden decolonization combined with the important role assumed by the various international institutions (and the consequent increase in bilateral relations) inevitably led to it the flow of a large number of fellows from different African countries by means of FAO, UNESCO, the EEC and of course, the Foreign Minister, within technical assistance programs⁶⁷.

Perhaps even more than what had happened in its first twenty years of life, the Florentine institute opened up to a world in profound transformation and in continuous movement which would have inevitably shaped its identity.

Conclusion

The need to have technical experts in tropical agriculture was felt in Italy in the early twentieth century, in conjunction with the plans for agricultural colonization in Eritrea, in the difficult period of the 'after Adua', and of the great migratory waves overseas. The Florentine school responded to this need with continuous updating training that over the years increased the level of its courses and the number of graduates, to arrive at a final set-up in the 1930s, also thanks to the work of the longest-running director of the IACI, Armando Maugini. In the decade marked by State colonization policies and by the birth of the empire, the fascist regime guaranteed the school of Florence the monopoly of middle education in colonial agriculture, conferred legal value to the issued titles, and introduced eventually, a specialization for graduate agronomists. Finally, the growth in number of places related to the restructuring of agrarian services represented a fair solution to the problem of placing graduates. But on the eve of the World War II, which would put an end to the Italian

⁶⁵ 48 in Italian colonies (Libya, Somalia, Ethiopia), 31 in Latin America, 8 in other African countries, 7 in Asia, 4 in USA, 1 in Europe e 1 in Oceania: *Allievi dell'Istituto Agronomico in paesi esteri*, in «Rivista di Agricoltura Subtropicale e Tropicale», a. XLVIII, n. 10-12 (ottobre-dicembre 1954), pp. 315-318

⁶⁶ A. Maugini, *Uno sguardo alle attività dell'Istituto nel 1960*, «Rivista di Agricoltura Subtropicale e Tropicale», a. LV, n. 1-3 (gennaio-marzo 1961), pp. 8-9.

⁶⁷ Between 1960 and 1967 149 African students attended the courses of preparation or specialization of medium level and 4 higher ones for post-graduates.: P. Ballico, *La formazione dei quadri tecnici agricoli nei paesi tropicali in via di sviluppo dell'Africa e nel Madagascar. Esperienze, considerazioni, proposte*, «Rivista di Agricoltura Subtropicale e Tropicale», a. LXI, n. 7-9 (luglio-settembre 1967), pp. 247-248. See also: Id., *Attività dell'Istituto Agronomico*, «Rivista di Agricoltura Subtropicale e Tropicale», a. LXII, n. 4-6 (aprile-giugno 1968), pp. 163.

colonial experience, IACI officials still remained to understand to what extent the imperial horizon would have affected the regime's willingness to invest in a post-training educational program and professional training in the field, according to what happened for the colonial agronomists of other colonial powers, a benefit to its technicians and for the agricultural services. But they were questions destined to remain unanswered.

The new political and economic scenario, national and international, by post World War II would have irreversibly changed the image of the Florentine school, by now at the service of new development cooperation strategies.

References

- "Allievi dell'Istituto Agronomico in paesi esteri". *Rivista di Agricoltura Subtropicale e Tropicale*, a. XLVIII, 1954, n. 10-12, ottobre-dicembre.
- "Atti dell'Istituto Agricolo Coloniale Italiano". *L'Agricoltura Coloniale*, a. II, 1908, n. 5-6; a. V, 1911, n. 12; a. XIII, 1919, n. 8; a. XXI, 1927, n. 8; a. XXII, 1928, n. 9; a. XXVI, 1932, n. 6; a. XXVIII, 1934, n. 5-8; a. XXX, 1936, n. 4; a. XXXI, 1937, n. 5.
- "L'Azienda agraria per il tirocinio pratico degli allievi del Corso teorico-pratico di agricoltura coloniale". *L'Agricoltura Coloniale*, a. XVII, 1923, n. 8.
- "Bando di concorso per la concessione di una borsa di pratica Agraria anno scolastico 1929-30". *Notiziario Economico della Cirenaica*, 1929.
- Ballico P., 1967. "La formazione dei quadri tecnici agricoli nei paesi tropicali in via di sviluppo dell'Africa e nel Madagascar. Esperienze, considerazioni, proposte", *Rivista di Agricoltura Subtropicale e Tropicale*, a. LXI, n. 7-9 luglio-settembre.
- Id., 1968. "Attività dell'Istituto Agronomico", *Rivista di Agricoltura Subtropicale e Tropicale*, a. LXII, n. 4-6, aprile-giugno.
- Bartolommei Gioli G., 1903. *L'agricoltura in Eritrea. Relazione al Regio Commissario Civile Straordinario*, Roma, Tip. Camera dei Deputati.
- Id., 1906. "Ordinamento degli studi agricoli e commerciali in rapporto alla politica coloniale". In: *Atti del Congresso Coloniale Italiano in Asmara, settembre-ottobre 1905*, Roma, Tipografia dell'Unione Cooperativa Editrice.
- Id., 1906. "L'azione coloniale dei tempi recenti e gli ostacoli per la nostra espansione all'estero". In: *Atti del Congresso Coloniale Italiano in Asmara, settembre-ottobre 1905*, Roma, Tipografia dell'Unione Cooperativa Editrice.
- Id., 1910. "L'Istituto Agricolo Coloniale Italiano nei primi 18 mesi della sua attività". *L'Agricoltura Coloniale*, a. IV, n. 1.
- Id., 1911. *L'attività dell'Istituto Agricolo Coloniale Italiano nell'anno 1910. Relazione del Direttore al Consiglio di Amministrazione* in: *L'Agricoltura Coloniale* a. V, n. 4-5.
- Id., 1913. *Relazione morale del Direttore al Consiglio di Amministrazione dell'Istituto Agricolo Coloniale Italiano per l'anno 1912-1913*. Firenze, IACI.
- Id., 1915. "Gli studi di agricoltura coloniale e l'opera dell'Istituto Agricolo Coloniale Italiano", in *International Association for Tropical Agriculture. Transactions of the Third International Congress of tropical agriculture. Held at the Imperial Institut, London, S.W. June 23 to 30, 1914*. vol. I, London.

- Baum E., 1997. Daheim und überm Meer. Von der Deutschen Kolonialschule zum Deutschen Institut für Tropische und Subtropische Landwirtschaft in Witzenhausen. Witzenhausen: Deutsches Institut für Tropische und Subtropische Landwirtschaft GmbH Witzenhausen.
- Bidolli M. P., Soldani S. (ed), 2001. L'istruzione agraria 1861-1928, Roma, MBCA.
- Bongiovanni L., 1935. Relazione sulla gestione commissariale a S. E. il Ministro delle Colonie, Firenze, IACI.
- Bonneuil C., Kleiche M., 1993. Du Jardin d'essai colonial à la station expérimentale, 1880-1930. Éléments pour une Histoire du Cirad, Cirad.
- Bottoni R. (ed), 2009. L'impero fascista. L'Italia e l'Etiopia (1935-1941). Bologna, Il Mulino.
- "Borse per Dottori del Corso Superiore". L'Agricoltura Coloniale, a. XXX, 1936, n. 2.
- "Campo d'istruzione dell'Istituto Agricolo Coloniale Italiano". L'Agricoltura Coloniale, a. V, 1911, n. 9
- "Campo d'Istruzione in Casentino". L'Agricoltura Coloniale, a. VI, 1912, n. 9-10.
- "Campo d'istruzione in Maremma". L'Agricoltura Coloniale, a. VII, 1913, n. 8.
- "Concessione di borse di studio". L'Agricoltura Coloniale, a. III, 1909, n. 5.
- "Concorso a borse di studio presso l'Istituto Agricolo Coloniale Italiano per l'anno scolastico 1911-12". L'Agricoltura Coloniale, a. V, 1911, n. 10.
- "Corso superiore di agricoltura coloniale". In L'Agricoltura Coloniale, a. VII, 1913, n. 5.
- "Corso di Patologia veterinaria tropicale sotto la direzione del professore A. Lanfranchi: 15 settembre-14 ottobre 1913, L'Agricoltura Coloniale, a. VII, 1913, n. 6.
- "Corso Superiore Accelerato di Agricoltura Coloniale". L'Agricoltura Coloniale, a. XIV, 1920, n. 2-3.
- Ciferri R., 1938. "L'ambiente biologico dell'Africa Orientale Italiana. Prolusione al Corso di specializzazione coloniale per Laureati in Scienze Agrarie, dettata a Firenze il giorno 31 gennaio 1938-XVI". L'Agricoltura Coloniale, a. XXXII, n. 2.
- Cresti F., 2000. "I primi anni di attività dell'Ente per la Colonizzazione della Libia attraverso i documenti del suo archivio". In Labanca N. e Venuta P. (ed), Un colonialismo, due sponde del Mediterraneo. Atti del seminario di studi storici italo-libici. Siena-Pistoia, 13-14 gennaio 2000, Pistoia, CRT.
- Id., 2011. Non desiderare la terra d'altri. La colonizzazione italiana in Libia. Roma, Carocci.
- D'Antone L., 1991. "L'«intelligenza» dell'agricoltura. Istruzione superiore, profili intellettuali e identità professionali", in Bevilacqua P. (ed.), Storia dell'agricoltura italiana in età contemporanea, vol. III, Venezia.
- Del Boca A., 1976-1984. Gli italiani in Africa Orientale. 4 voll. Roma-Bari, Laterza.
- Id., 1986-1988. Gli italiani in Libia. 2 voll. Roma-Bari, Laterza.
- Id., 1984. Gli italiani in Africa Orientale. Nostalgia delle colonie. Roma-Bari, Laterza.
- De Robertis R., 2015. "Un patrimonio fondamentale: le fotografie e i documenti conservati presso l'Istituto Agronomico per l'Oltremare relativi alla Libia coloniale", in Labanca N. (a cura di), Terre e lavori dalla Libia coloniale, Firenze, IAO-MAE.
- Falorsi G., 1939. "L'Istituto Agricolo Coloniale Italiano". L'Agricoltura Coloniale, a. XXXIII, n. 3.
- Ferrara A., 1925. Relazione sull'attività dell'Istituto Agricolo Coloniale Italiano negli Esercizi 1922-23 e 1923-24, Firenze, IACI.
- Fumian C., 1991. "Gli agronomi da ceti a mestiere". in P. Bevilacqua (a cura di), Storia dell'agricoltura italiana in età contemporanea, vol. III, Mercati e istituzioni, Venezia, Marsilio
- Giorgi C., 2012. L'Africa come carriera. Funzioni e funzionari del colonialismo italiano. Roma, Carocci.

- Hodge J. M., 2007. *Triumph of the Experts. Agrarian doctrines of development and the legacies of British colonialism*. Ohio University Press.
- “Inaugurazione del Corso Superiore d'Agricoltura Coloniale”. *L'Agricoltura Coloniale*, a. VIII, 1914, n. 2.
- Istituto Agricolo Coloniale Italiano, 1914. *Norme regolamentari per il Corso ordinario teorico-pratico di Agricoltura Coloniale*, Firenze.
- Id., 1914. *Programmi didattici del Corso ordinario teorico-pratico di Agricoltura Coloniale*. Firenze.
- Id., 1915. *Regolamento per l'esecuzione del campo di istruzione*. Firenze.
- Id., 1915. *Statuto fondamentale e regolamento generale per il funzionamento dell'Istituto*, II edizione. Firenze.
- Id., 1928. *L'Istituto Agricolo Coloniale Italiano dalle sue origini ad oggi. Brevi note sul suo funzionamento*. Firenze.
- Id., 1933. *Corso Superiore di Agricoltura Coloniale (16 gennaio-31 marzo 1933)*. Firenze.
- Id., 1936. *Notizie sull'Istituto Agricolo Coloniale Italiano di Firenze*. Firenze, Tip. G. Ramella & C.
- Istituto Agronomico per l'Africa Italiana, 1940. *Istituzione e Statuto della Sezione agraria di Istituto tecnico superiore specializzato nell'agricoltura coloniale*. Firenze, Stab. Tip. Ramella.
- Id., 1941. *Statuto, orari, programmi della Sezione agraria di Istituto tecnico superiore specializzato nell'agricoltura coloniale*. Firenze, Stab. Tip. Ramella.
- Istituto Superiore Agrario di Portici, 1928. *Il R. Istituto Superiore Agrario di Portici 1872-1928*. Spoleto, Arti grafiche Panetto & Petrelli.
- Kleiche M., 1996. “La Professionnalisation des agronomes coloniaux français : l'École de Nogent, 1902-1940” in: Waast R., Chatelin Y., Bonneuil C. (ed.). *Les Sciences hors d'Occident au XX° siècle*, vol. III *Nature et environnement*, Paris, ORSTOM Éditions.
- Id., 2000. “Des agronomes pour l'Empire ou l'École nationale supérieure d'agriculture coloniale (1902-1939)”, in *Le monde de l'agriculture coloniale 1902-1945. Actes du Colloque ENESAD*, 19-21 janvier 1999, Dijon, Educagri édition.
- Labanca N., 1995. “L'amministrazione coloniale fascista. Stato, politica e società”. In Del Boca A., Legnani M., Rossi M. G. (a cura di). *Il regime fascista. Storia e storiografia*. Roma-Bari, Laterza.
- Id., 2002. *Oltremare. Storia dell'espansione coloniale italiana*. Bologna, Il Mulino.
- Id., 2012. *La guerra italiana per la Libia. 1911-1931*. Bologna, Il Mulino.
- Id., 2015. *La guerra d'Etiopia 1935-1941*, Bologna, Il Mulino.
- Maat H., 2011. *Science cultivating practice: a history of agricultural science in the Netherlands and Its Colonies, 1863-1986*. Dordrecht, Kluwer Academic Publishers.
- Malon C., 2006. *Le Havre colonial de 1880 à 1960*. Publications des Université de Rouen et du Havre-Presses universitaires de Caen.
- Mangano G., 1910. *Programma del corso di Agricoltura coloniale svolto dagli allievi dell'Istituto Agricolo Coloniale Italiano*. Firenze, Stab. Tip. Ramella & C.
- Marilli O., 1939. “Una gita di istruzione nella Libia Orientale del Corso di specializzazione in Agricoltura coloniale”. *L'Agricoltura Coloniale*, a. XXXIII, n. 11.
- Maugini A., 1928. “L'Istituto Agricolo Coloniale e la preparazione dei tecnici”. *L'Oltremare*, a. II, n. 5.
- Id., 1928. “Relazione al Consiglio di Amministrazione”. *L'Agricoltura Coloniale*, a. XXII, n. 1.
- Id., 1929. “Un'utile iniziativa della Camera di Commercio, Industria ed Agricoltura di Bengasi”. *L'Agricoltura Coloniale*, a. XXIII, n. 2.
- Id., 1930. “Riunioni di orientamento sui problemi agricoli delle Colonie italiane”. *L'Agricoltura Coloniale*, a. XXIV, n. 1.

- Id., 1961. "Uno sguardo alle attività dell'Istituto nel 1960". *Rivista di Agricoltura Subtropica e Tropicale*, a. LV, n. 1-3 (gennaio-marzo).
- Mazzocchi Alemanni N., 1919. *L'agricoltura nella politica coloniale*. Tripoli, Stab. Arti Grafiche.
- Id., 1921. *Relazione Morale sull'attività dell'Istituto dal luglio 1919 al dicembre 1920*. Firenze, IACI.
- Monina G., 2002. *Il consenso coloniale. Le società geografiche e l'Istituto coloniale italiano (1896-1914)*. Roma, Carocci.
- Morando L., 2004. "L'enseignement colonial en province (1899-1940): «impérialisme municipal» or réussites locales?", *Outre-Mers. Revue d'histoire*. t. 91, n. 342/343.
- Morone A. M., 2011. *L'ultima colonia. Come l'Italia è tornata in Africa, 1950-1960*. Laterza, Roma-Bari.
- Perini R., 1919. *Le industrie italiane e l'Istituto Agricolo Coloniale Italiano*. Firenze, IACI.
- "Primo elenco dei soci dell'Associazione fra i Licenziati dell'Istituto Agricolo Coloniale Italiano". *L'Agricoltura Coloniale*, a. VII, 1913, n. 6.
- "Programma per l'anno scolastico 1908-09". *L'Agricoltura Coloniale*, a. II, 1908, n. 3.
- Prudhomme E., 1931. "L'Ecole pratique coloniale du Havre, in Comptes Rendus du Congrès de l'enseignement colonial en France (28-29 septembre 1931)". *Outre-Mer*, a. III, n. 3 (special), septembre.
- Sandler W., 2016. "Colonial education in the Third Reich: the Witzenhausen colonial school and the Rendsburg colonial school for women". *Central European History*, 49(2).
- Segrè C., 1974. *Fourth Shore. The Italian Colonization of Libya*. University of Chicago.
- Simon B., 1996. "Brève rétrospective de l'enseignement agricole colonial en France des origines aux indépendances". In Waast R., Chatelin Y., Bonneuil C. (ed.), *Les Sciences hors d'Occident au XX^e siècle*. Vol. III Nature et environnement, Paris, ORSTOM Éditions.
- Trotter A., 1932. "Per un insegnamento superiore di agronomia coloniale in Italia". *L'Agricoltura Coloniale*, a. XXVI, n. 7.
- Varsori A., 1998. *L'Italia nelle relazioni internazionali dal 1943 al 1992*. Roma-Bari.