ALFRED MARSHALL’S IDEA OF PROGRESS AND SUSTAINABLE DEVELOPMENT1.

by

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Wealth exists only for the benefit of mankind. It cannot be measured adequately in yards, nor even as equivalent to so many ounces of gold; its true measure lies only in the contribution it makes to human well-being

(Pigou, 1925, p.366)

I. INTRODUCTION.

For a long time, Marshall’s chief contribution to economic science was considered to be Book V of Principles of Economics that is, the “analytic core” of his thought. Book V, “General Relations of Demand, Supply and Value”, deals with the important theme of economic equilibrium that ipso facto rules out any possibility of coping with economic development3. When Alfred Marshall describes Book V, he points out that “it is not descriptive, nor does it deal constructively with real problems. But it sets out the
theoretical backbone of our knowledge of the causes that govern value (...)” (1961, vol.1, p.324); in short, it “deals with abstractions” (1898, p.52). The existence of Book V has been supposed, by some scholars⁴, to be sound enough proof that Alfred Marshall was not interested in the question of economic development.

But, more recently, it has been suggested that one of the main Marshallian concerns was economic development⁵, “the high theme of economic progress”, as he called it (Marshall 1961, vol.1, p.461).

In this paper we shall attempt to strengthen this interpretation of Marshall’s contribution, in order to draw attention to interesting but less known aspects of his thought. The structure of the paper is as follows: section 2 provides a general outline of Marshall’s conception of economic development; section 3 lays stress on those aspects that are close to the modern conception of sustainable development⁶ and more specifically emphasizes “urban sustainability” which Marshall took a great interest in; finally, section 4 draws some conclusions about the modernity of Marshall’s concept of progress.

II. MARSHALL AND ECONOMIC DEVELOPMENT.

The “high theme of economic progress”.

According to Marshall “the growth of mankind in numbers, in health and strength, in knowledge, ability, and in richness of character is the end of all our studies” (1961, vol.1, p.139). As a result, the theme of economic progress is the fundamental topic of most of his writings⁷ as well as the subject Marshall thought of addressing in his last, unfinished book.⁸
The concept of progress, with its rich complexity of meanings and implications, cannot be fully grasped by equations and quantitative relations that characterize the neoclassical approach to the issue of economic development. This is evident to Marshall who writes: “the theory of stable equilibrium of normal demand and supply helps indeed to give definiteness to our ideas; and in its elementary stages it does not diverge from the actual facts of life (...). But when pushed to its more remote and intricate logical consequences, it slips away from the conditions of real life. In fact we are here verging on the high theme of economic progress; and here therefore it is especially needful to remember that economic problems are imperfectly presented when they are treated as problems of statical equilibrium, and not of organic growth” (1961, vol.1, p.461).

Progress has an evolutionary dimension that expresses itself more in qualitative than in quantitative changes as Marshall points out:

Progress has many sides. It includes development of mental and moral faculties, even when their exercise yields no material gain. The term progress is narrow and it is sometimes taken to imply merely an increase in man’s command over the material requisites of physical mental and moral well-being, no special reference being made to the extent to which this command is turned to account in developing the higher life of mankind. When increase of material wealth is united with the solidity of character sufficient to turn it to good account. (...) True human progress is in the main an advance in capacity for feeling and for thought, yet it cannot be sustained without vigorous enterprise and energy. (...)
Progress is not identified with a mere increment of “wealth” but involves other and more important factors: “the production of wealth is but a means to the sustenance of man; to the satisfaction of his wants; and to the development of his activities, physical, mental and moral”(1961, vol.1, p.173). This explains why Marshall prefers to talk about “development” or “progress” rather than “growth” which suggests a strictly quantitative meaning, while “development” and “progress” refer more specifically to a qualitative dimension (Sen 1988).

On the one hand, industrial development involves an increase in wealth, production, and incomes but, on the other hand, it risks enslaving man and his environment to the requirements of production, and therefore worsening the quality of life whose betterment should be the main aim of the human race. Therefore the quality of life is the true test of progress\(^\text{11}\): a good quality of life requires not only a certain level of income but also other elements not easily valued in purely economic terms (fresh air, green spaces etc).\(^\text{12}\)

This is the relevant point to be considered: Marshall did not want to investigate the economic system isolated from the political, social, cultural and institutional context, but he was determined to investigate that “larger concept” called “society” where “(men) live and move and think in the ordinary business of life”(1961, vol.1, p.14) and whose economic dimension is only one element of a larger whole.

In the opening page of the *Principles*, Marshall underlines that

Economics is a study of mankind in the ordinary business of life; it examines that part of individual and “social action that is most closely connected with the attainment and with the use of the material requisites of well-being. Thus it is on
the one side a study of wealth; and on the other, and more important side a part of
the study of man (1961, vol.1, p.1)

This concept of economics depends on the aim which Marshall set himself while
approaching economic science, that is, deeply to understand the reality of his time: i.e.
British society in the late nineteenth century, swept by the advancement of the industrial
revolution, with its huge emerging problems. The most serious trouble was poverty
especially because, for Marshall, it was the main hindrance to progress. For this reason
he aimed at solving this problem throughout his life, as he once admitted:

I have devoted myself (...) to the problem of poverty, and (...) very little of my
work has been devoted to any inquiry which does not bear on that (1926, p.205)

The Causes of Poverty.

According to Marshall, the poor are people with “poor physique and feeble will, with no
enterprise, no courage, no hope and scarcely any self-respect, whom misery drives to
work for lower wages than the same work gets in the country” (1884, pp.144-145). The
only way to improve their condition is to make them “gentlemen”, a word that, in

The key element of this approach are the conditions in which work has to be performed
because – as Marshall rhetorically asks – is it not true that “when we say a man belongs
to the working classes we are thinking of the effect that his work produces on him rather
than the effect that he produces on his work?” (1873a, p.158).
Work is given much emphasis in Marshall’s writings. According to him “work is not a punishment for fault: it is a necessity for the formation of character and, therefore, for progress” (Pigou 1925, p.367). He paid great attention to the types and context of different occupations: those employments that promote culture, sense of responsibility and mental wideness also ameliorate the character of employees that can thus become “gentlemen”. These occupations demand powers and activities of mind in various kinds. They demand the faculty of maintaining social intercourse with a large number of persons; they demand, in appearance, at least, the kindly habit of promptly anticipating the feelings of others on minor points, of ready watchfulness to avoid each trivial word or deed that may pain or annoy. These qualities are required for success, and they are therefore prepared in youth by a careful and a long continued education. Throughout life they are fostered and improved by exercise and by contact with persons who have similar qualities and require them of their associate (1873a, p.158)

On the contrary, those occupations that require many hours of hard work, tire and restrict mental faculties and take place in unhealthy environments, are absolutely prejudicial to employees.
The common feature of the latter kind of occupations (i.e. unskilled work) is that the employees (most of them) are people without any culture and education whereas they are, for Marshall, necessary conditions of progress. In a letter to Bishop Brooke Foss Westcott he writes:
There is only one effective remedy that I know of, and that is not short in its working. It needs patience for the ills of others as well as our own. It is to remove the sources of industrial weakness: to improve the education of home life, and the opportunities for fresh-air joyous play of the young; to keep them longer at school; and to look after them, when their parents are making default, much more paternally than we do. Then the Residuum should be attacked in its strongholds (Whitaker 1996, vol. 2, p.263)\textsuperscript{14}

Education stimulates previously unused human resources and in this way increases production. It is therefore a form of investment in man, the subtest instrument of production, and the most important productive machinery\textsuperscript{15}. Moreover, education helps distributive justice because it raises the wages of unskilled workers: on the one hand it reduces their number, making that kind of work scarce, on the other it improves the quality of work and increases production. For this reason “the best investment of the present capital of the country – Marshall says – is to educate the next generation and make them all gentlemen” (1873b, p.106”)

“\textit{Natura non facit saltum}.”

The motto “\textit{Natura non facit saltum}”, premised to the \textit{Principles of Economics}, synthesizes the idea that progress must be slow and gradual\textsuperscript{16},

In fact our new command over nature, while opening the door to much larger schemes for industrial organization than were physically possible even a short time ago, places greater responsibilities on those who would advocate new developments of social and industrial structure.\textsuperscript{17} For though institutions may be changed rapidly; yet if they are to endure they must be appropriate to man: they
cannot retain their stability if they change very much faster than he does. Thus
progress itself increases the urgency of the warning that in the economic world,
Natura non facit saltum. Progress must be slow; but even from the merely material
point of view it is to be remembered that changes, which add only a little to the
immediate efficiency of production, may be worth having if they make mankind
ready and fit for an organization, which will be more effective in the production
of wealth and more equal in its distribution; and that every system, which allows
the higher faculties of the lower grades of industry to go to waste, is open to grave

Progress has to be slow in relation to “man’s growing command over technique and the
forces of nature, a command which is making ever growing calls for courage and
cautions, for resources and steadfastness, for penetrating insight and for breath of view”

Economic progress cannot be severed from the progress of political, social and cultural
institutions that form the “milieu” in which economic activities take place18. Marshall
explained this concept in his speech at the “Industrial Remuneration Conference”
(1885b), an important meeting held in London and planned by a gentleman of
Edinburgh19: “economic institutions – Marshall maintains – are the products of human
nature and cannot change much faster than human nature changes” (1885b, pp.173-4).

Even if institutions can be changed quickly, in order to last, they need to be suitable to
man. But man, for natural and cultural reasons, can only change very slowly. In the
preface to Money Credit and Commerce (1923) Marshall writes:
The present volume is the third of a group, the main purpose of which is to study
the direction of man’s efforts for the attainment of material ends: and to search for
possibilities of improvements in that procedure which may increase the command
of the peoples of the world over their resources; and enable them to develop their
higher faculties (1923, p. v)

In this statement Marshall underlines two important aspects of progress: firstly, progress
produces an increase of man’s command over Nature, but secondly, progress requires
the development of higher human faculties. The two aspects are strictly connected. It is
not enough for man to increase his command over Nature, it is also necessary to
develop the faculties that allow him to use that command correctly. And the acquisition
of human faculties takes time.

III. SUSTAINABLE DEVELOPMENT IN MARSHALL’S WRITINGS.

The Concept of Sustainable Development.

We shall now proceed to show that the Marshallian view of progress shared some
aspects with the modern notion of sustainable development. This concept is quite recent.
It arises from the awareness that economic development must respect many boundaries
that have been neglected too long, above all the limit given by natural resources. The
most common definition of sustainability is that coined by the World Commission on
Several other definitions stress different aspects of “sustainability”, but it is possible
roughly to summarize the main requisites as follows:

1) The urgency to solve the problem of poverty.
2) The necessity to preserve natural resources and the awareness that man has gone too far in the exploitation of Nature.

3) The awareness that most modern cities have become uninhabitable and the need to transform them into something more “sustainable” for human beings.

4) The consciousness that, in order to become sustainable, development has to affect both the economic and the political, institutional and cultural aspects of human life

5) The idea that human well-being cannot be measured simply in “quantity of goods” but has to be considered in terms of quality of life.

In section 2, we have seen how Marshall urged the necessity of solving the problem of poverty and how he really believed that economic progress had to be accompanied by institutional, cultural and political development.

In the following paragraphs, we will also see that Marshall insisted on the present generation’s responsibility towards future generations, raised, though only occasionally, the issue of the depletion of natural resources and above all was well aware of the existence of problems of “liveability” in towns and cities.

The intergenerational responsibility.

In the Brundtland Report sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their needs”. This definition translates the ethical idea of equity “within” and “between” generations. Of course Marshall did not state this modern conception of development but was not so far away from it when he stressed the importance of taking care of the next generation and investing in its education, in short when he emphasized
the responsibility of the present towards the next generation for the progress of society. In Principles he underlines

The growth of general enlightenment and of a sense of responsibility towards the young has turned a great deal of the increasing wealth of the nation from investment as material capital to investment as personal capital” (1961, vol.1, p.681)

A strategic role is given to “family”, that in Marshall is not only “an engine of capital accumulation” but also, and moreover, “a vehicle for human improvement” (Collard 1996, p.591). It is up to parents “to leave the largest progeny behind them” (Marshall 1961, vol. 1, 201) but “people should not bring children into the world till they can see their way to giving them at least as good an education both physical and mental as they themselves had” (Marshall 1961, vol. 1, p.202).

Investment in human capital is a fundamental step towards progress, though it is often “limited by the resources of parents in the various grades of society, by their power of forecasting the future, and by their willingness to sacrifice themselves” (Marshall 1961, vol. 1, p.561). These limits characterize, above all, the lower classes of society but the evil that follows is general and cumulative:

The worse fed are the children of one generation, the less will they earn when they grow up, and the less will be their power of providing adequately for the material wants of their children; and so on to following generations (1961, vol. 1, p.562)

When parents are unable to raise their children properly, the state should take their place so that “the children even of those parents who are not thoughtful themselves, may have
a better chance of being trained up to become thoughtful parents of the next generation’’.
To summarize, the state should have an active role for “that side of the well-being of the
poorer working class which they cannot easily provide for themselves” (1961, vol. 1, p.718).

The importance of natural resources.
The central issue of marginalistic neoclassical economics is scarcity. The economic
problem comes to coincide with the (optimal) allocation of scarce resources among
different possible uses. But it is important to notice that the scarcity they consider is
relative and never absolute. Nevertheless, most natural resources are scarce in an
absolute sense: this was well known to classic economists, and even more to William
Stanley Jevons.

Marshall himself did not overlook this problem. In Industry and Trade he writes:

   Nature’s opportunity cannot long retain their present large generosity; for the
   world is small. Science may indeed enable a fairly vigorous life to be maintained
   in tropical regions, which have hitherto proved fatal to high energies: but ere very
   many generations have passed, the limitation of agricultural and mineral resources
   must press heavily on the population of the world, even though its rate of increase
   should receive a considerable check (1919, p.2)

This is one of his rare statements of the depletion of natural resources. It matches his
awareness of the delicate “man-environment” relationship: man can modify the
environment around him but this capacity can sometimes be used in ways which are
neither constructive nor positive. Marshall notes that “the greater part of the soil in old
countries owes much of its character to human action; all that lies just below the surface has in it a large element of capital, the produce of man’s past labour. Those free gifts of nature, which Ricardo classed as the ‘inherent’ and ‘indestructible’ properties of the soil, have been largely modified; partly impoverished and partly enriched by the work of many generations of men” (1961, vol.1, p.147).

But his considerations of this subject do not go much deeper. It was up to Arthur Cecil Pigou to develop the issue of the exhaustion of resources²⁵, barely mentioned by his master.

Another aspect connected with the problem of the exhaustion of natural resources is represented by the pressure of population. Malthus first emphasized the damaging effect of the growth of population on the produce of nature and set the problem of over-population, considering the notion of scarcity as a constraint on economic growth. This idea has been resumed more recently by the so-called neo-Malthusians: their main belief is that world population is a kind of “bomb” with fatal effects on natural resources, whether renewable or non-renewable, an idea brought forward by Paul Ehrlich in the late 1960s. Out of this “pessimistic creed” came the study by the group of scientists of the Massachusetts Institute of Technology that ended with the publication of the Club of Rome report Limits to Growth (1972). As pointed out by Ayres, the interpretations and opinions given by the neo-Malthusians have been and are strongly criticised by, the “mainstream circles” (2001, p. 7) opposing a more positive point of view. This issue is too wide to be handled here but the brief outline hinted above is useful in order to frame the position of Alfred Marshall.
Marshall was quite optimistic with the problem of the pressure of population in a short and medium run perspective: dealing with Malthus’ reasoning, he notes that the main steps of his argument were wrong since he could not foresee, at that time, “the great developments of steam transport by land and by sea” (1961, p.180). According to Marshall “the growth of population, if not checked by other causes, must ultimately be checked by the difficulty of obtaining raw produce; but in spite of the law of diminishing return, the pressure of population on the means of subsistence may be restrained for a long time to come by the opening up of new fields of supply, by the cheapening of railway and steamship communication, and by the growth of organization and knowledge” (1961, p.166). In Industry and Trade he noted that “the difficulty of obtaining adequate supplies of food and raw produce would not weigh heavily on densely peopled countries” (1919, p. 3), especially on Britain, but later on he observed that “the total lowering of costs is much greater for very long distance than for short: and in consequence European countries now buy many things from other Continents which they used to buy not very long ago from neighbours” (1919, p.29). However, this possibility cannot last forever: in fact, going back to Malthus’ thesis he writes: “It remains true that unless the checks on the growth of population in force at the end of the nineteenth century are on the whole increased (they are certain to change their form in places that are as yet imperfectly civilized) it will be impossible for the habits of comfort prevailing in Western Europe to spread themselves over the whole world and maintain themselves for many hundred years” (1961, p. 180). Taking a very long time perspective, Marshall felt that natural resources would have been menaced, although at that time the world and its wealth still seemed almost inexhaustible.
The problem of urban sustainability.

Where Marshall proved to be well ahead of his time was in the issue of urban “liveability”: the awareness that problems of “urban sustainability”, which were beginning to arise at that time, could be serious and long lasting. This consciousness brings Marshall very close to concerns that characterize our age.

In analysing contemporary society, Marshall paid much attention to the effects that living in grey and polluted towns, without green open spaces, had on the morale and the productive efficiency of people. This attention was present from the beginning in Marshall’s writings and is also manifest in his public activity. Further, throughout his life, Marshall was in close touch with the Society for Promoting Industrial Villages and the Garden City Movement, two associations that aimed to improve the quality of life of the urban population, especially of the poor. It may be worthwhile spending a few words to present these movements and Marshall’s interest in their activities.

The Society for Promoting Industrial Villages was founded in 1883. Its members included social reformers and a few industrialists such as Herbert Somerton Foxwell, Samuel Morley, James Hole, Benjamin Jones and Walter Hazell. Its moving spirit was Henry Solly, a remarkable social reformer and innovator. The Society was not very successful and disappeared in 1889 because of its own internal weakness and public apathy.

Marshall’s interest in the activity of the Society probably dates back to 1885. The first evidence of his interest is the speech he gave at the already mentioned Industrial Remuneration Conference where he discussed the “over-crowding of towns” and suggested two remedies to this problem:
The first is to enforce sanitary regulations in London, with rapidly-increasing stringency. (…) accompanied by my second remedy, which is that liberal and vigorous action be taken to help those who are in London and are not wanted there to move themselves and their work to industrial villages where they can get house-room cheaply, and fresh air for nothing (1885b, p.184)

After recognizing possible difficulties and dangers of the two remedies, he went on:

I will venture to ask those who think the second remedy of importance, to see if they cannot help the society, which (I have recently learnt) has been formed for promoting Industrial Villages. (…) Its task is most difficult, and wants the aid of all the best practical knowledge that is to be had (1885b, p.184)

He knew the Society had financial problems but he found another main hindrance for its development and success: the feeble structure of its organization:

I am afraid of too highly differentiating the Committees at first. A complex organisation of committees each doing one part of the whole may be effective hereafter: but I shd not like to begin with it. I w’d rather that at first each little colony sh’d be started guided & helped by one committee: the Society being a common meeting ground for all Committees (or private individuals) that might take part in the movement; but not attempting to work them into an organized whole at present (Whitaker 1996, vol. 1, p.191)

The organizational aspect was also discussed with Foxwell who, in accordance with Marshall, realised quite soon that that was the weakest aspect of the Society and the cause that would have made it fail.
The Garden City Movement was more successful. The inspiration of the movement was Ebenezer Howard, a town planner and reformer. His book To-morrow: a Peaceful Path to Real Reform (1898) outlined a model of self-sustaining town that would combine town conveniences and industries with the advantages of a rural location. The Garden City Association was formed by Howard in 1899 and in May 1900 it resolved to form a limited company called “The Garden City Limited”. It formed a Pioneer Company in 1902, which went on to purchase the Letchworth estate and build the first garden city. Marshall’s involvement with the Garden City Movement was much stronger than with the Society for Promoting Villages. He also made references to the Movement in the Principles of Economics and in Industry and Trade. He took part in the meeting organised at the Guildhall in Cambridge, on February 1902, and gave a big impulse to the popularity of the movement. The Cambridge Review recorded that “some of the supporters of Mr Howard’s project are perhaps inclined to put forward exaggerated claims as to the possibilities of good contained in it (i.e. association). But that there are such possibilities, and that the scheme is something more than a wild and visionary dream there can be no doubt at all. Of this we have sufficient guarantee in the fact that Professor Marshall has consented to take the chair at the meeting” (Cambridge Review February 13th 1902, p. 184).

As already stated, Marshall’s interest in the quality of town life dates back from the beginning of his economic reflections. In the public lecture, “The Pressure of Population on the Means of Subsistence”, delivered in Autumn 1885 at Toynbee Hall in London, Marshall considered three sets of basic physical requirements for a wealthy society: raw materials, manufactured commodities and pure air, pure water and space
for recreation. The latter were becoming, in Marshall’s view, ever more scarce, owing to the over-crowding of towns:

In thinking over the ways in which manufacture is facilitated by increase of numbers, thus so far counteracting the pressure of population on subsistence, we tacitly assume that people will be more or less packed close together. But when we come to (grapple) with facts as they are, some of our chief charges against them are really founded on the evils that are caused by close packing (Whitaker 1975, p.391).

What kind of evils Marshall sees in this “packing”? First of all, lack of fresh air, “the most important side of the pressure of population growth”: “he (the Londoner) can’t get fresh air except on an occasional holiday at very great expense, he can’t get decent houseroom except at a very large expense, he gets scarcely any recreation properly so called: his digestion is weak and he can’t get along on the simple food that would suffice for him in the country: and worst of all his children get no wholesome play” (Whitaker 1975, p.391).

The same kind of concerns are present in “Where to House the London Poor”, published in the Contemporary Review one year earlier, where Marshall deals with the housing problem in London pointing out that

Whatever reforms may be introduced into the dwelling of the London poor, it will still remain that the whole area of London is insufficient to supply its population with fresh air and the free space that is wanted for wholesome population (1884, p.142)
In Marshall’s view, the problem of overcrowded towns is serious\textsuperscript{42} and has to be faced and solved because though “the progress of knowledge and in particular of medical science, the ever-growing activity and wisdom of Government in all matters relating to health, and the increase of material wealth, all tend to lessen mortality and to increase health and strength and to lengthen life … on the other hand, vitality is lowered and the death-rate raised by the rapid increase of town life …” (1961, vol.1, p.203)\textsuperscript{43}.

Towns are considered social organisms where people live and work. There, productive activity implies “employment of vast numbers of workers who have inherited weakness of body, mind and character from several generations, that have lived unwholesome lives and overstrained their nerves” (1919, p.284). Large conurbations, the products of the Industrial Revolution, are the “theatre” where the degeneration of individuals is more often “performed”. In London, for example, “residence for many generations amid smoke, and with scarcely any of the pure gladness of bright sunshine and green fields, gradually lowers the physical constitution. It is said that this deterioration is seen even in families where high wages are earned and well spent; that the thoroughbred Londoner is seldom a perfect workman …” (1884, p.144).

Therefore cities and towns can be the source of many external diseconomies that are not counterbalanced by internal economies of size. Thus, when many big firms are concentrated in an urban area, we could say that the area is efficient from an economic point of view, but not from a social point of view\textsuperscript{44}, if against the advantages of a high rate of productivity we have to weigh pollution and lack of green spaces\textsuperscript{45}. In \textit{Principles} Marshall points out that “in almost all countries there is a constant migration towards the towns. The large towns and especially London absorb the very best blood from all
the rest of England; the most enterprising, the most highly gifted, those with the highest physique and the strongest characters go there to find scope for their abilities” (1961, vol.1, p.199). But this reveals a possible danger: the tendency towards urban crowding can have negative effects not only on sanitation, hygiene and the environment, but also on economic efficiency itself. Since in big towns “there are large numbers of people with poor physique and a feeble will, with no enterprise, no courage, no hope, and scarcely any self-respect, whom misery drives to work for lower wages than the same work gets in the country. The employer pays his high rent out of his savings in wages; and they have to pay their high rents out of their diminished wages. This is the fundamental evil” (1884, pp.144-45). Moreover, “the want of air and light, of peaceful repose out-of-doors for all ages and of healthy play for children, exhausts the energies of the best blood of England which is constantly flowing towards our large towns. By allowing vacant spaces to be built on recklessly we are committing a great blunder from a business point of view” (1961, vol.1, p.659).

Marshall envisaged two possible solutions to this problem. Firstly, he maintains: “the evils of town life are being combated by the drift of population from the central districts to suburbs where most families can have separate houses, many can have gardens, and nearly all children can play freely in the open air” (Whitaker 1996, vol. 3, p.230). The first remedy proposed to overcome the inhabitability of towns is, therefore, the decentralisation of population.

The other mitigation is the so called “Fresh Air Rate”, a tax to be charged to urban landowners and “levied on that special value of urban land which is caused by the concentration of population” (1961, vol.1, p.718n.). That “general rate” should have “to
be spent on breaking out small green spots in the midst of dense industrial districts, and on the preservation of large green areas between different towns and between different suburbs which are tending to coalesce”\(^47\) (Whitaker 1996, vol. 3, p.236). Both remedies call to mind modern tendencies of urban planning and environmental legislation: the decentralisation of population was seen as a key element in the Greater London Plan settled by Abercrombie in 1944\(^48\) and now, after “the collapse of the integrated ideal”\(^49\) is generally considered an essential requisite of new urban landscape. The “fresh air rate” can be seen as a complement to the “Pigouvian” carbon tax, according to which whoever pollutes has to pay. This form of taxation is actually working in many countries in order to meet the Kyoto targets for sustainable development.

IV. CONCLUSIONS.

The goal of bettering the quality of life (for the present and the future) is the inspiring principle of sustainable development, but, even though this word is recent, it is not brand-new. Many of the conditions set for economic development to be “sustainable” were already recognized and stated by a few economists of the past. Among them Alfred Marshall deserves special mention. Throughout his life, he was concerned with\(^50\) the “high theme of progress”, since to him the true aim of mankind was “the elevation of human life, the making it full and strong (life all around, individual and social, moral and religious, physical and intellectual, emotional and artistic)”\(^51\). He was particularly aware of the manifold and complex aspects related to economic development and, in substance, came very close to the modern idea of sustainability.
Marshall was particularly concerned with many aspects of the quality of life, generally considered: the quality of the air man breathes and of the water he drinks and that of the “environment” (physical, social, cultural) he works and lives in. Moreover, he considered these aspects from a long run perspective, the multi-generational perspective that nowadays turns out to be indispensable and urgent. In analysing socio-economic reality, Marshall never rested on short run considerations but looked at the consequences that would probably occur in the long run. If the process of urbanization, particularly if rapid and widespread, seems on balance to be advantageous in the short run, in the long run its negative consequences tend to prevail52. In this perspective, we can understand more clearly Marshall’s warning that “for the sake of a little material wealth we are wasting those energies which are the factors of production of all wealth: we are sacrificing those ends towards which material wealth is only a means” (1961, vol.1, p.659). Wealth is important because it promotes health and physical, mental and moral strength53: it is therefore an important condition for progress but it cannot be said to coincide with progress itself54, as contemporary thinkers have now recognized. As Marshall already envisaged, we have progress only when “increase of material wealth is turned to account in developing the higher life of mankind”55.

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3 In point of preciseness, the matter is more complex as suggested by Marco Dardi in his paper “Alfred Marshall’s Partial Equilibrium: Dynamics in Disguise”, in Arena R. and Quéré M., (2003).

4 For instance, Thorstein Veblen (1919, p.173) and Mark Blaug (1996, p.693).


6 The recognized forerunner of this modern conception of economic development is not Marshall but Thomas Malthus who first (1798) asserted the scarcity of world natural resources and exposed the dangers of overpopulation.

7 I.e. in Industry and Trade (1919), Lectures to Women (1873b), The Future of Working Classes (1873a), Water as an Element of National Wealth (1879), Cooperation (1889),
Where to house the London Poor (1884), How far do Remediable Causes Influence Prejudicially (a) the Continuity of employment, (b) the Rates of Wages? (1885b), A Fair Rate of Wages (1887), Some Aspects of Competition (1890b), Social Possibilities of Economic Chivalry (1907), Distribution and Exchange (1898), as well as a large part of Principles of Economics (1st ed. 1890).


9 In point of fact, marginalist economists contemporary to Marshall did not pay much attention to the problem of economic development or growth. They were interested in the power of the new analytical tools, “shorn” of sociological, historical, political and environmental considerations to explain the optimum equilibrium of the economic system, taken in isolation and cast into logical time.


11 In a letter to James Ward (23rd September, 1900) where Marshall explains why he decided to study economics preferring it to philosophy ethics and mathematics he writes: “I spent a year in doubt: always preferring psychology for the pleasures of the chase; but economics grew and grew in practical urgency, not so much in relation to the growth of wealth as to the quality of life”. (Whitaker 1996, vol. 2, p.285). According to Marshall, progress means improvement of the quality of life and this is pointed out in one of the many notes written for the book on Progress. The note is dated 23-7-20 and it is entitled “Some Influences of Economic Progress on the quality of Life” (Marshall Library Archive, Marshall Red Box 1 (3), Identity Code: Marshall 5/3/2).
12 Marshall knew the negative effects that a blind increase of wealth could have on the quality of life. Moreover, and more interestingly, he was also aware of the fact that problems of this kind were to become, sooner or later, serious not only for particular nations but also all over the world and that they could be solved only through the cooperation of each (rich) country. In *Industry and Trade* he notes: “it is becoming clear that this and every other western country can now afford to make increased sacrifices of material wealth for the purpose of raising the quality of life throughout their whole population. A time may come when such matters will be treated as of cosmopolitan rather than national obligation” (1919, p.5).

13 In this part Marshall’s reasoning is very close John Stuart Mill’s. See Raffaelli (2003).

14 Dated 24th January 1900.

15 Education plays, therefore, an essential part in social (and economic) progress so that Marshall has been recognized as a forerunner of human capital theory (see Bowman 1990).

16 The motto comes from Charles Darwin (1872). It testifies the adoption of the principle of continuity that in Marshall has a manifold role. How far Marshall’s thought was evolutionary is a rather disputed question: on this subject it is interesting to compare Stigler (1941) Reisman (1987), Hodgson (1993), Groenewegen (2001) and Raffaelli (2003).

17 With these words, Marshall is referring to socialists. Marshall defines himself a socialist because he believes that “almost every existing institution must be changed” but points out “I fear that socialists would refuse to admit me into their fold because I believe that change must be slow” (1885b, pp.59-60).
18 This concept of progress is a development of what Professor Becattini calls (with a provocative tone) an “anomaly” (compared with the marginalistic mainstream): “the idea of man as a varied and variable entity”. See Becattini (2000).

19 The gentleman was Robert Miller “an engineer who had made a fortune in Australia and returned to settle in Edinburgh” (Whitaker 1996, vol. 1, p.212). He anonymously financed the conference and proposed the following question to the economists, politicians and learned men of the time (besides Marshall there were Thomas Brassey, Robert Giffen, William Cunningham and Joseph Shield Nicholson): “What are the best means, consistent with justice and equity, for bringing about a more equal division of the daily products of industry between Capital and Labour, so that it may become possible for all to enjoy a faire share of material comfort and intellectual culture, possible for all to lead a dignified life, and less difficult for all to lead a good life?” (Marshall 1885b, p.v).

20 That is – as pointed out below – the main point ratified in the Brundtland Report.

21 Collard (1996) recognizes that interest in future generations is relatively recent but that there is also a “strong Cambridge tradition (Mill-Sidgwick-Marshall-Pigou-Ramsey)” that paid attention to this issue. “This tradition – Collard notes – had more or less petered out in conventional economics by about 1930, (...)” (Collard 1996, p.585), but its concerns are very modern and more recently have become of interest for economists too.

22 At least, according to the well known definition of economics given by Lord Lionel Robbins: “the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses” (1932, p.15).
23 At the same time, they postulate infinite needs. So, if there is no limit to natural resources and to people’s needs, well-being is assured by the maximisation of goods production. As Collard notices, “the depletion of natural resources (…) was simply not of mainstream interest” (Collard 1999, p.148).

24 In “The Coal Question”, 1865, Jevons faced the problem of the depletion of coal mines in England.

25 In Economics of Welfare, for instance, he writes: “the environment of one generation can produce a lasting result, because it can affect the environment of future generations. Environments, in short, as well as people, have children” (Pigou 1924, p.99).

26 In 1885 he delivered a lecture at Toynbee Hall on “The Pressure of Population on the Means of Subsistence”. A brief summary of the lecture is given in The Malthusian (October 1885, pp. 653-4) where the writer (a Malthusian) seems to be disappointed with Marshall’s conclusions since “he had not a word to say in favor of limitation of births” (p. 654). The text of the lecture is given in Whitaker 1975, pp. 387-93.

27 See for example the material related to Marshall’s membership of the Royal Commission on Labour 1891-94, in Groenewegen, 1996.

28 Economist and bibliophile, he was fellow of St. John’s College for sixty years and held the chair of Economics at University College in London from 1881 to 1927.

29 English manufacturer and politician, he was one of the owners of the London Daily News, the chief liberal media of the period. He was an active philanthropist, a man of charity and a model employer.

30 Social reformer, he was secretary of the Associated Chambers of Commerce.

31 He was a member of the Co-operative Workers Society.
32 He was one of the members of the printing firm Hazell, Watson & Co.

33 Henry Solly was the promoter and founder of two other important organisations in Britain: the Working Men’s Club (1862) and the Charity Organisation Society (1869).

34 The society had very restricted resources, almost entirely financed by Samuel Morley. His death, in 1886, marked the beginning of its decay.

35 He had been a subscriber to the Society since 1885, when he made a £ 5 donation followed by further smaller subscriptions until the society’s failure (see Whitaker 1996, vol. 1, p.187).

36 Letter to the Society for Promoting Industrial Villages, dated 19 March (1885?).


38 In a letter to Henry Solly he wrote: “I have reluctantly come to the conclusion that the society will never have any practical influence. We had failed to get hold of the British public: & having failed, the best thing we can do as I think, is to stand aside, in the hope that others may be more fortunate” (letter dated 25 May 1887). Foxwell further noted that Marshall also thought it was “hopeless to struggle on” (Whitaker 1996, vol. 1, p.191, n.3).

39 Each city was considered as a magnet since it attracted people (the needles) offering employment and excitement; the countryside was seen as another magnet, attracting people because of its recreational qualities and beauty. Each taken by itself, however, was considered insufficient and its own drawbacks. As a solution, Howard proposed a third magnet, the Town-Country Magnet or Garden City that combined the best of the country with the best of the city: its centre was a circular space laid out as a garden; surrounding this garden were the public buildings (town hall, principal concert and
lecture hall, theatre, library, hospital etc); on the peripheral ring of the town were factories, warehouses, markets, etc, all fronting the circle railway which surrounded the whole town.

40 Explaining how urban value is increased “by individual effort and outlay” (1961, vol. 1, p.442), Marshall notes that “a more recent instance of exceptional interest is furnished by Letchworth Garden City” (1961, vol. 1, p.443n.). This clause, according to Guillebaud, was inserted in the 5th edition (1907) (Marshall 1961, vol. 2, p.515).  
41 Developing his argument against “unwholesome overcrowding”, Marshall publicly supported the movement. He writes: “In an article entitled Where to House the London Poor, published in the Contemporary Review, February, 1884, the present writer advocated tendencies, of which Mr Ebenezer Howard was already a leader; and subsequently bore fruit in his crusade for Garden Cities” (1919, p. 802n.). Other important examples are given by Saltaire and Pullman City created by farsighted men (Mr Salt and Mr Pullman) who were able to understand that “the land which they could purchase at its value for agricultural purpose, would obtain the special situation value which town property derives from the immediate neighbourhood of a dense population” (1961, p. 422). Titus Salt, for instance, in 1851, replaced his old existing mills with a huge factory and built around it a new town for working people. 
42 In a recent article, Glaeser (1999) presents a model “where individuals acquire skills by interacting with one another, and dense urban areas increase the speed of interactions”. His model would formalize Marshall’s theory since “Alfred Marshall argues that since intellectual flows between individuals depreciate over space, dense concentrations facilitate the flow of ideas” (p.254). This opinion is based on the
following passage of Principles: “great are the advantages with people following the same skilled trade get from near neighbourhood to one another. The mysteries of the trade become no mystery: but are as it were in the air” (1961, p.271). However, Marshall is here referring to “the advantages of localized industries” as underlined in the margin note of that page and as made clear in the first part of the above quoted passage “when an industry has thus chosen a locality for itself, it is likely to stay there long”.

43 This solution is nowadays a much debated issue between those who consider decentralisation of people as an evil and supporters of the idea of polycentric cities made up of various neighbourhoods.

44 To this kind of reflections applies Marshall’s warning against the Darwinian law of the “survival of the fittest”: “the struggle for survival tends to make those methods of organization to prevail, which are best fitted to thrive in their environment; but not necessarily those best fitted to benefit their environment” (1961, vol.1, pp.596-7). A very similar passage is present in Industry and Trade (1919, p.175).

45 In Industry and Trade Marshall points out: “New facilities for traffic are enabling large numbers of those, who work in them (cities), to have their homes in the suburbs, where the children can play in fresh air: and the same facilities are giving to the residents in such suburbs advantages that are beyond the reach of country folk. Rūs in urbe, urbs in rure, the cherished idea of the philosopher, may ere long be realized in old countries, and even more fully in alert new countries, in a degree that seemed beyond hope even a short time ago: and the economies of making and marketing may no longer promote unwholesome overcrowding” (1919, pp.801-2).
46 Letter to Luis Dumur, 2nd July 1909.

47 Letter to the editor of The Times, 13th November, 1909.

48 This plan was prepared on behalf of the Standing Conference on London Regional Planning and made important suggestions for the location of industry and housing. In particular, “the advocacy for planned decentralisation became the post-war model for all urban areas” (Cherry 1974, p.128).


50 Further proof of his interest can be gathered from the huge number of articles he read on issues connected with progress. In the bound volumes shelved in his personal library, a great deal of articles are dedicated to the problems of poverty, housing and living conditions in cities. (Caldari 2000 and the second forthcoming part).


52 Again (see above note 42), we can see Marshall’s critical attitude towards natural selection whose short run outcome can hinder long run benefits or can be even treacherous. Man has to consider long run consequences and therefore to oversee progress paths, since “subordination to natural tendencies, when pushed to its extreme logical issue, is blind fatalism” (1919, p.175).

53 He writes: “We have next to consider the conditions on which depend health and strength, physical, mental and moral. They are the basis of industrial efficiency, on which the production of material wealth depends; while conversely the chief importance of material wealth lies in the fact that, when wisely used, it increases the health and strength, physical, mental and moral of the human race” (1961, vol.1, p.193).

54 See, on this question, Daly (1996).