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SOCIAL REFORM AND SLUM REFORM

PART I—GENERAL

A LECTURE DELIVERED BY
J. P. ORR, Esq., C.S.I., I.C.S.,
TO THE SOCIAL SERVICE LEAGUE,
BOMBAY, IN THE SERVANTS OF
INDIA SOCIETY'S HALL, BOMBAY,
ON 3RD SEPTEMBER 1917

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INDEX.

	Page.
1. Introduction	1
2. The part social reform can play in slum reform	1
3. Open space required for light and perfation of air... ..	1 & 2
4. Demolition and dishousing necessary	2
5. Preventive measures must precede remedial; by-laws must provide for adequate control over building operations	2
6. Prevent bad from getting worse... ..	2
7. Open areas not yet built on—high standard at once	3
8. Areas partially built over, not congested—high standard ultimately	3
9. Densely congested areas—lower standard temporarily, ultimately higher... ..	3 & 4
10. In densely congested areas buy up open plots and levy betterment charges:	4
11. also plots cleared by fire and by demolition of obstructive buildings	4 & 5
12. thus creating small garden sites of great value	5
13. Dishousing can now be started, but slowly, waiting on provision for rehousing	5 & 6
14. Private enterprise failing, we must develop estates ourselves and if necessary give a lead in building	6
15. We can house the poor only at a loss till wages increase	6 & 7
16. Hence economy in site and building necessary	7
17. In spite of objections to subsidising employers, we must house displaced poor, if private persons won't	7
18. Where are chawl sites to be found—in cheapest locality near old houses	8
19. even though we give up land which ought to be put to more paying uses.	8 & 9
20. Position and size of chawl site... ..	9
21. Chawls should be erected a few at a time to test demand	9
22. The competition of insanitary rooms should be avoided by legislation against overcrowding and for closure of U. H. H. rooms... ..	9 & 10
23. To help the rehousing of those above the poorest classes by private enterprise, we must improve communications	10 & 11
24. Danger of improving communications before strengthening by-laws to prevent formation of new slums	11
25. We should encourage co-operative building societies	11 & 12
26. Where should acquisition and demolition be first undertaken?	12
27. If we wish to avoid heavy initial outlay, we must commence with the least congested parts	12 & 13
28. Otherwise we may attack the most congested parts, but at risk of failure to rehouse the dishoused	13
29. <i>Ceteris paribus</i> , areas where buildings are in regular lines should be treated before higgledy piggledy areas	13
30. In the former only parts of houses should be acquired and demolished to create rear open spaces, and betterment should be levied from properties that benefit thereby	13 & 14
31. Where funds are scarce, slum reform programme should be— i. Bring building operations under strict control and prevent bad from getting worse, ii. Attract people away from slums, iii. Wholesale acquisition and demolition of depreciated slums.	14
32. Conclusion	14

SOCIAL REFORM AND SLUM REFORM.

1. I am very glad of this opportunity of addressing the Social Service League, as I have long felt that, though there is great need of slum reform in Bombay, there can never be any great measure of slum reform until there has been a very considerable impetus given to social reform in certain directions. Eight years' study of the slum question in Bombay has convinced me that new legislation on the lines found necessary for dealing with slum evils in western countries will be required, if there is to be a substantial advance towards the ending or mending of Bombay slums. Let us for the moment, however, put Bombay out of our thoughts and deal with the question of slum reform generally. Let us suppose that we here are a local body solely entrusted with and responsible for the administration of a large town which is suffering from extensive slums mainly due to uncontrolled building operations having created excessive congestion of houses on land. **How are we going to set about the task of reducing and relieving congestion?**

2. We shall certainly need the aid not only of legislators but also of social reformers : for in these democratic days legislation involving interference with vested interests cannot be put through without the support of the people ; and so long as the people are content with existing conditions and are not prepared to insist on improvement, improvement there will be none. Social reform is, in my humble opinion, needed to create such discontent with existing conditions as will lead to the formulation of definite public opinion in favour of the adoption of higher standards in two important matters ; (1) a higher standard of comfort, especially for the poorer classes, as regards the admission of light and air to their dwellings, and (2) a higher standard in the sacrifice of private to public interests. It is in these two directions that I should like to see the Social Service League working for the ultimate improvement of Bombay slums.

3. **Light and air are Nature's two great healing elements which every one might have gratis *ad libitum* if public opinion insisted on every dwelling room having sufficient open space about it. Such open spaces must be adequate not merely for the free admission of *light* into each particular dwelling room but also for ample perflation of air between rows or blocks of houses.** It is this consideration which has induced modern hygienists to insist in all big cities on the reservation of adequate open spaces in the rear of every house and the reservation of a certain minimum proportion (usually one-third) of each house site as open land. It is this same consideration which makes reformers in town development insist upon some measure of regularity in the arrangement of houses so that there will be long stretches of continuous open land *behind* houses corresponding to the open spaces provided by roads in front, the difference being merely that the spaces in front are public roads serving the purposes of traffic as well as perflation, while the spaces in the rear

are generally made up of private lands not open to traffic, every house-owner, however, getting light and air not only from his own but also from his neighbours' rear open space.

4. It is obvious that in a town which suffers from such a high pitch of congestion that few dwelling rooms get sufficient light and air into them there can be no great measure of slum reform without a heavy programme of demolition and, consequently, the dishousing of large numbers of people. This will lead to an increased demand for living accommodation outside the area dealt with; and this in turn will, on the one hand, lead to an increase of rents and, on the other, give an impetus to the erection of new or the extension of old buildings; and, thus, if we are not very careful, our efforts to decrease congestion in one part will lead to an increase of congestion in neighbouring areas already over-congested, or the extension of congestion to more distant areas not as yet too densely built over. We shall merely have moved our slums, not removed them altogether.

5. Now, it is not a bit of good demolishing slums, if the result is to be the creation of new slums or the intensification of insanitary conditions in existing slums. Preventive measures must therefore precede remedial measures. Our very first step—the step on which all subsequent measures depend for success and without which they will be hopelessly emasculated—must be to stiffen up our by-laws so as to bring building operations under adequate control—the control of the Municipality representing public interests over the building operations of land-owners whose first thought will be for their private interests. This control must be exercised not only over new buildings but also over the extension or reconstruction of old buildings; for what we want is to encourage building on improved lines so that there may be sanitary accommodation available for the people who will be dishoused when we start the inevitable demolition of slums; whereas if we allow old buildings to be extended on the same bad lines on which they were originally erected, we shall be discouraging building to our new higher standards, because, so long as wages and standards of comfort remain low, the dishoused people will flock to new rooms on old sites rather than go farther out to new rooms for which higher rents are demanded; and the fear of having many vacancies in the absence of a good demand will make capitalists hesitate to invest in new buildings in outlying estates.

6. We are out to reduce congestion where it exists and to prevent it from coming into existence elsewhere. So in areas already built over it is obviously our first duty to prevent bad from getting worse. The difficulty is to determine what is to be considered bad; and, if we are to be guided by public opinion, we must have social reformers to help us by educating public opinion to demand reasonably high standards of comfort and sanitation. In fixing our standards of open space which are to check the spread of congestion, we must steer between the Scylla of encouraging bad building and the Charybdis of discouraging building altogether, as might be the effect of an unreasonably high standard.

7. In open areas not yet built upon there will be no harm in looking forward to an advance in standards of comfort and insisting on a standard of open space which, though considered high by a majority now, is likely to be considered, say 20 years hence, the lowest tolerable consistently with the then generally accepted standards of comfort. Experience will show whether the standard we fix is so high as to discourage that extension of buildings in areas hitherto not built on which it is our object to encourage. If this proves to be the case, we shall have to lower our standard.

8. In areas already partially built over but not seriously congested, we can aim at the *ultimate* establishment of the same minimum standard that we have adopted for open areas ; but we must allow it to be worked up to gradually.

We needn't interfere with houses that are already built over more than the prescribed proportion of their respective sites so long as bad is not made worse: but we should on no account allow them to be extended, unless they are brought up to standard: and whenever they are reconstructed, the new standard should be enforced. Under this policy the new standard will be *gradually* established as houses are reconstructed, but there will be no interference with old houses so long as they are merely subjected to internal alterations, and bad is not made worse. One great advantage of this policy is that it works by slow and gradual changes, far less disturbing to landlords and tenants alike than drastic changes which often miss their object and do more harm than good. Some people, impatient for reform, will think this policy defers improvements too long ; but if social reformers set to work to raise standards of comfort, the demand for lower standard rooms will decrease, and owners, with the prospect of losing rent if they leave their rooms as they are, will be only too glad to improve them upto modern standards. The reduction of congestion through the gradual enforcement, as houses are reconstructed, of new by-laws requiring a higher standard of open space than the old is a very slow process of improvement, but that very slowness gives it one inestimable advantage over wholesale demolition schemes, *viz.*, that it involves far less and far slower dishousing.

9. In densely congested areas the policy of not letting bad get worse is obviously indicated ; but here we may perhaps, to encourage early changes for the better, tolerate some lower standard of open space when buildings are reconstructed, provided the reconstruction is undertaken within a prescribed term of years ; seven to ten years ought to suffice. The justification for making a difference between the standard in congested areas with high land values and the standard to be adopted elsewhere arises from various considerations the chief of which are—

- i. that the value of land being very high, and dependent largely on the extent of rentable floor area that can be got into a building over a given ground area, the devotion of large areas hitherto built over to open space may connote a far greater sacrifice than in localities in which land is cheap ;

- ii. that whereas in open areas builders can design their buildings to suit the requirements of new open space standards, in areas built over they are hampered by the existence of buildings designed to suit lower standards ;
- iii. that the higher rents to be ultimately expected as a set-off against loss of floor area will not be obtained immediately ; for it takes time (especially in the absence of efforts by social reformers in the education of the masses) to make tenants appreciate the advantages of improved lighting and ventilation and therefore to make them ready to pay higher rents for improved rooms ; and
- iv. that a standard of open space somewhat lower than that chosen for general adoption in open areas will still be considerably higher than the existing standard in congested areas, so that its adoption connotes considerable improvement, and at the same time reduces the difficulty of rehousing population when reconstruction is undertaken, because it involves less dishousing than if the higher standard were adopted.

10. In all localities, whether densely congested or not, it is equitable to require every house site to contribute its quota towards the open space of the neighbourhood ; and accordingly at least one-third of each house site is in most cities required to be kept open from ground level to the sky ; but in the densely congested areas in which we may have decided to tolerate the lower standard it will probably be necessary in public interests to make one important exception in the policy of non-interference with private property so long as bad is not made worse, *viz.*, in the case of a house site in which more than one-third is open and round which are house sites in each of which far more than two-thirds is built over. **In these densely congested areas every little open space is of the utmost importance to the surrounding houses as a lung and should therefore be maintained as such, if possible.** It would be most unjust to penalise the owner to whose abstention from building the existence of the open space is due ; we should rather reward him for such abstention ; but to secure the continuance of the open space as such, we should either acquire his property at its full value so as to obtain the power to keep the space open or, without taking the open ground out of the owner's possession, we should pay him handsome compensation for the surrender of his right to build on the space. In either case it will be equitable to require the immediate neighbours to contribute towards the cost of the improvement to the extent of the betterment accruing to their properties from the light and air easements which we shall grant them over the open space.

11. Opportunities of exercising this same policy will occur when houses are burnt down in the congested area ; and if we can get the legislature to help us, we may extend the policy by acquiring obstructive houses, demolishing them, and converting the sites into gardens or children's play-grounds and levying betterment from neighbouring properties improved thereby as is done in England under section 38 (8) of the Housing of the Working Classes Act.

Social reformers can prepare the way for such legislation by stimulating public opinion to protest against individual house-owners being allowed to acquire gratis an unearned increment in the value of their properties from operations entailing heavy outlay from the public purse.

12. We might as well cry for the moon as expect ever to have *large* recreation grounds where there are now congested areas. **It is fully recognised by all town developers that the provider of play-grounds must be well ahead of the builder; otherwise prohibitive cost is an insuperable obstacle;** but under the policy just sketched it will be quite possible to have in time, dotted all over the congested areas, miniature gardens, the value of which as open air resting places will be out of all proportion to their size.

13. Now suppose we have taken the necessary first steps to prevent bad from getting worse (para. 6), to enforce a sufficiently high standard of sanitation in new estates (para. 7) and old estates not yet seriously congested (para. 8) and to require an advance to some lower standard in old congested estates in which the high value of land would make the higher standard oppressive (para. 9); suppose we have arranged for the gradual acquisition of small open plots for gardens (paras. 10 to 12), we shall barely have started on the actual reduction of congestion. Can we make a really big advance towards such reduction by forthwith starting demolition on a large scale? No, we cannot. All experience shows the necessity of proceeding very slowly, especially at the beginning of any operations involving dishousing or any other violent interference with the habits of a people. The change must come slowly. It takes time to build houses, and in these days it costs far more money than of old. In order to reduce demolition and consequently dishousing to the minimum, at any rate while cost of building is at its present abnormally high level, we may well tolerate the low standards we have tolerated so long a little longer pending the restitution of normal conditions. We may start acquiring the houses we want to demolish, while the process of preparing accommodation for the people to be ultimately evicted from them is going on; but **we must evict only a few at a time, no more than can be provided for in the houses newly built or in vacant rooms in existing houses outside the congested area.**

When we have acquired a lot of houses we need not pull down whole blocks except in the rare cases in which the immediate construction of a through road over their sites is a matter of pressing urgency. We can select for early demolition individual houses the removal of which will admit more light and air to surrounding houses and so enable us to keep the latter standing so much longer pending more rapid extension of building operations in outlying open areas. We may even find it possible to let for human habitation in the improved houses rooms which before the improvement were U. H. H.; **but before dishousing large numbers we must wait till we can be sure that sufficient new accommodation satisfying adequate sanitary standards is being and will continue to be provided for the dishoused as required;** and there are various causes which may

operate to delay progress in this. For instance, the owners of outlying estates may prefer to hold on to their lands till values rise ; or they may not have the capital necessary for conversion of their lands into residential estates ; or the available land may belong to different owners, who can't combine to develop the land ; or the prospects of obtaining tenants for new houses may be not sufficiently encouraging.

14. If from these or any other causes the provision of houses for those we want to dishouse is flagging, we shall have to give a lead ourselves. We shall have to buy up lands favourably situated for development into residential estates and undertake development ourselves. That in itself won't suffice, if we can't get builders to take up our land, or if they will only build for the better classes. We shall then have to start building for ourselves ; but for many reasons it is undesirable that a public authority should be a large owner of private residences : so our efforts must be by way of encouragement of private enterprise ; we want to give a lead only : and we want to get private enterprise to take on the work after we have made a start. Now the first thing a private business enterprise (as distinguished from a philanthropic institution) wants is a good financial return on the capital expended ; so our efforts at encouragement will be futile if we can't show that it pays to build. Social reformers can help us by educating capitalist to be not only capitalists but citizens, and as such to introduce into that phrase "it pays" considerations not only of direct private benefit in rupees, annas and pies, but social, moral and indirect financial benefits *to the City*. They may also teach the builder who is not a financier to judge the value of his investment not solely by the immediate return but by future returns and by the unearned increment which in growing cities invariably accrues sooner or later, according as the investment is made in early or late stages of the City's development, from the favourable situation of the property.

15. One of the main difficulties which confronts us in the matter of rehousing is to decide which of the people whom we must dishouse we shall first provide for. We shall probably decide to help those who are least able to help themselves, *i.e.*, the poorest. Now the trouble about the poorest is twofold. Firstly, they get such low wages that they can't afford any but the lowest rent ; and we can't expect them to pay a suddenly increased rent, if we can't at the same time get them a substantial increase of wages. Secondly, they are so accustomed to a low standard of comfort and so ignorant of the dangers to themselves (and since they form such a large proportion of the total population to the public at large) arising from insanitary surroundings that it is very difficult to wean them from their old insanitary tenements and get them to appreciate the wisdom of paying more (even if they could) for a higher standard of comfort.

It is here that the social reformer gets his chance : his part is to rouse public opinion in favour of an increase of the poor man's wages and of prohibiting the renting of rooms unfit for human habitation and to educate the poor man

to desire a higher standard of comfort and see that he gets it. But even if we get the social reformer to help us, we can't expect to see immediate results; social reform takes time: we can't afford to wait for it; so, though we should lose no time in setting it to work, we must ourselves do something for the poor at once; that means we must face a loss on our capital expenditure for some years at the outset until wages and standards of comfort rise; and to that extent our attempt at encouraging private enterprise in house building for the poor must for the time being fail.

16. We start therefore on our operations for rehousing the poor with the knowledge that they must for a time at any rate involve a financial loss, but with the hope that they may, when wages increase, yield a fair financial return. This hope will never be realised unless we exercise the utmost economy throughout our operations. We can't make palaces for the poor pay. We must choose the cheapest available ground, the cheapest substantial materials and the cheapest methods of building consistent with the attainment of a reasonable standard of comfort. We must not be over liberal in our expenditure on comforts as distinguished from necessities; we must utilise as little ground as possible consistently with attaining a reasonable standard of lighting and ventilation; otherwise the standard of wages will never rise sufficiently to enable us to show a financial return which will get business men (as distinguished from philanthropists) to follow our example.

If social reformers don't come to our rescue, we may never, even with the most economical building, succeed in showing a return which will attract capital to chawl building from more profitable enterprises; but if we exercise the strictest economy, we may ultimately succeed in making our schemes self-supporting and we shall at any rate have escaped the reproach of having spent public funds extravagantly.

17. Economists hold various views in this matter. Some point out that to house the poor from public funds at a loss is virtually to subsidize private employers from public funds, for which there can be no justification. Others hold that the financial loss from good housing is more than set off by advantages resulting from the better housing of the poor, advantages which are not merely moral, but even financial, where better housing has resulted in reduction of sickness and crime, improvement in birth rates and death rates, and the consequent saving in public expenditure on hospitals and police. They also hold that the subsidizing of an industry, whether in the shape of housing for operatives or otherwise, from public funds is justifiable in a city which depends for its prosperity mainly on that industry.

In any case we have at the outset at any rate no choice in the matter. If private enterprise won't provide decent houses for the poor we have to displace, we must make the necessary provision ourselves; but if we can persuade their own employers to house them properly, so much the better.

18. **The next question which arises is—where are we to find land for chawls for the poor?** There are many knotty points which have to be taken into consideration here. In the first place, we must find vacant land ; for to select land already built on with the idea of replacing the existing houses by chawls would only add to our rehousing task. Next, vacant land must be near the slum from which we are evicting the poor ; for the average Indian workman is a very difficult person to move from his old haunts. He doesn't notice deterioration in his surroundings and doesn't see any reason for leaving a place which was good enough for his father. **If we get him to move at all, we certainly shouldn't get him to move far ; and until wages are raised, he won't, even if communications are improved and means of transit cheapened, be able to pay for carriage to and from his work ; so he must be within easy walking distance of it.** Here again is a chance for the social reformer to help by persuading the workman to live outside the congested area, even if that entails a long walk to his work. He can impress upon him the advantage of having open recreation grounds near where he lives and the impossibility of having any near where he works, if his working place is anywhere near the heart of the City, where the demand for shops, godowns and business premises makes the cost of devoting such land to recreation grounds prohibitive. The workman won't himself except on holiday get much benefit from the recreation grounds, if they are far from his working place, and if he has long hours of work and has to spend much time on the journey to and from home ; but his wife and children will, and that is a very important matter to him. His own share in the benefit can be increased if the time he has to spend on journeys to and from work is reduced ; and the social reformer can agitate this point for him and try to get wages increased and communication between business centres and suburbs by rail and road improved.

19. A further difficulty about finding a suitable site for workmen's chawls arises from the consideration that in the pursuit of economy in town development costly land ought always to be put to its most paying use. We have to bear in mind that our operations will increase the value of the land in the congested areas ; for there the land derives its value largely from its situation on account of demand for housing accommodation near business centres. Our operations are *ex hypothesi* directed towards reducing housing accommodation in a given area ; and consequently, unless the demand is diminished (which is unlikely, except where we can move a business centre) the value of the land must go up. This is a good thing for us as land owners ; but it carries this disadvantage, that we can't, without considerable sacrifice, house our poor in the areas we improve. Land of high value ought from an economic point of view to be devoted to buildings which yield high rent : but we can't get high rents from chawls for the poor ; and moreover the location of such chawls on any area tends to depreciate plots in the immediate vicinity. We should therefore be glad to escape the necessity of rehousing the poor in or near the congested area. We shall however have to make some sacrifice for the better housing of the poor ; for we can't expect a private owner to make any : and we can't expect the social reforms which are to get higher wages for the poor to take effect very quickly : so, unless the sacrifice is made from the public purse, the poor will

not be provided with housing in or near the congested area. **We must therefore make up our minds to acquire vacant land as near the congested area as possible for chawl sites, without considering what user will pay best in it.**

20. We shall probably find it best to minimise the sacrifice by selecting sites which are necessarily of comparatively low value by reason of being in divided ownership and not easily accessible from main roads, and, for preference, sites so situated that the area of land depreciated by the erection of chawls will be reduced to a minimum, e.g., sites next to railways or graveyards or other open spaces. These have the additional advantage that there is so much open space available for the ventilation of the chawls without our having to buy it. **As to the size of the site, we shall do well to err on the high side, so as to be in a position to extend our buildings if the site proves popular.** If it does not, we can lease the land for other purposes or, if our funds permit of the sacrifice of revenue, convert it into a recreation ground. Pending completion of our first pakka buildings, part of the site can be used for temporary structures; and here again is a reason for taking up a large plot at the outset; for temporary ground floor structures to accommodate a given number of people take up more room than permanent storeyed houses for the same number.

21. We shall do well to start our chawls in several different sites according to the situation of the places from which we want to remove the poor; **but in no one locality should we start building too large a number of chawls simultaneously; otherwise we run the risk of having our chawls vacant.** Very little suffices to create a prejudice against new quarters in the mind of the average Indian workman, especially if there is also to be a change of neighbours or a change in such old ingrained habits as the holding of rent in arrears, emptying the remains after meals out of the window, dumping of rubbish anywhere, and so on. Unless we make the chawls very attractive in situation, general amenities and above all in rent, we run the risk of having them empty on our hands, particularly if the workman has any where also to go to on his own when we dishouse him.

22. Here arises an important point which I might perhaps have noticed before. How far are we to interfere with the evicted workman's right to go where he pleases? Echo answers "not at all"; but that doctrine must be accepted with certain limitations in a crowded Indian city, so long as social reform has not succeeded in removing the workman's ignorance and raising his standard of comfort. If the average Indian workman of the poorest class is left to himself, he'll make just any hole do for his residence, particularly if he hasn't got his wife and family with him; so in his own interests no less than those of the public health it is necessary to legislate against the letting of rooms that are dangerously insanitary for human habitation. The evil resulting from congestion of houses on land are bad enough without being intensified by the evils resulting from overcrowding of rooms with people. **So legislation must be directed towards not only the closure of rooms that are unfit but also the overcrowding of rooms that are fit for human habitation. Until this has been provided for, it will be most**

dangerous to embark on the dishousing of the poor on any large scale, dangerous not only to public health but also to our whole scheme of reform both financially and otherwise. Our measures for preventing extension of insanitary buildings will be stultified ; for the poor will flock into these buildings and overcrowd the rooms ; the landlords will raise rents and get rents for passages and store rooms and odd corners that yielded nothing before ; and when we come to acquire their houses in their turn we shall find the rents at their maximum and we shall have to pay far heavier compensation for them than if we had acquired the houses before we dishoused the poor from neighbouring houses. No ; if we cannot afford to wait for a rise in the standards of wages and comfort, we must legislate against overcrowding before we start to dishouse the poor, whether room by room or house by house ; and when we start, we must follow the same principles with the poor as with other classes, viz., make rehousing keep pace with dishousing, and, if rehousing isn't carried on fast enough by private enterprise, we must either retard dishousing (if not stop it altogether) or ourselves undertake the erection of new homes for the dishoused.

23. So much for the poorest classes whom we turn out of slums. What about the other people we displace—those whose housing is left to private enterprise ? How are we to help them ? Houses will have to be built for them outside the congested area ; and the farther we have allowed the congested area to be extended, the farther they will have to be removed from their original houses and therefore probably from their places of business. Here comes in the value of good communications in a town.

The worse our communications, the greater the hardship of taking people far from their place of business and therefore the greater the demand for and consequently the value of the land nearest to the congested area ; and this means high house rents. On the other hand, the better our communications, the less objection people will have to living farther from the congested area and the more land is available to meet any demand for new buildings outside the congested areas ; and therefore the more owners share in the appreciation of land values resulting from this demand. At the same time this appreciation being distributed over a large area, the rise in square yard value is moderated ; and this will ultimately mean moderation in rise of house rents, a great desideratum in the extension of towns.

So then if we want to turn a large number of people out of a congested area (which is necessarily the case if the problem of congestion is to be seriously tackled), we must in the first place improve means of communication between business centres and lands capable of development into good residential estates. Our new through roads must on no account be narrow roads.

The lesson learnt by experience in town development in England is that the very highest standard of construction must be insisted on in main roads for through traffic, while a lower standard may to reduce cost be permitted in minor feeder roads and a

much lower standard in purely interior roads within residential estates. **The main roads must be broad roads built with a view to the maximum conceivable expansion of through traffic in the next 50 years :** the feeder roads may be less broad and the estate roads may be as narrow as 20', provided that the houses along them are set back at least 10' from the road, so that there may be no buildings to remove if it ever becomes necessary to broaden the road to 40'.

24. In these days of rapid improvement in electric railways, tramways and motor cars, the mere proposal to construct a broad road connecting suburbs with a big business centre is sufficient to send up the price of land along the route and encourage owners of hitherto unutilised land to develop it into residential estates. But here comes in a great danger. I have assumed that we commenced by formulating by-laws to secure adequate control by the public authority over building operations (para. 5). **If we haven't done this first before we notify our projects for improving main communications, we run the same risks in the outlying areas as in the immediate vicinity of the slum area we are going to clear,—the risk of creation of new slums or of suburbs which will soon deteriorate into slums ; our new roads designed for the ultimate relief of congestion will be conducing to the creation of new centres of congestion : once again (vide para. 4) we shall be merely moving slums instead of removing them altogether:**

We must minimise this risk, if we have got sufficient capital at our command, by buying up along the route of our improved main roads cheap undeveloped land especially low-lying water-logged land which the owners are not likely to develop. This by levelling, draining, etc., we can convert into residential estates for the accommodation of the people we are going to dislodge ; and there we can establish our own standards of sanitation to attract the people away from insanitary estates ; but to say nothing of the enormous capital expenditure this would involve, it is far better to avoid expropriation of private owners and leave them to develop their own estates under the control of the local authority with the assistance perhaps of a Town Planning Act ; so we will stick to our original assumption that the by-laws have been properly strengthened before the improvement of communications has been undertaken.

25. Our broad roads will benefit all classes, but especially the rich who can afford to keep motor cars ; and the rich will need no more help from us. For the poor who cannot help themselves we have decided to build houses. What more can we do for the middle classes ? We can help them to help themselves by stimulating, even to the extent of subsidising, co-operative building societies. In England an immense amount of good has resulted from the building society movement and especially from the extension of that form of co-operative building society known as " Copartnership Tenants," which is specially suitable for lower middle class people who can never hope to be individually owners of houses. Under the methods of " Copartnership Tenants " the members become not individual owners each of his own house but collectively joint owners of many houses by virtue of the shares they hold in the society. All building societies aim at providing their members with good houses in

good surroundings on the easiest possible terms ; and one great advantage that individuals secure by getting their houses through societies is that they can be sure of having surroundings which are not only sanitary from the outset but are secured from deterioration in future by the society's estate development and maintenance rules by which all members are bound. The society's estates are laid out in regular up-to-date sanitary lines ; every tenant has to think not only of his own but also of his neighbour's interests and to contribute something towards the general amenities of the estates ; and the profits of the society are generally spent on the estate for the benefit of the tenants. The small owner who invests his capital in the purchase of a home in such estates is free from the fear of deterioration and depreciation which must always haunt the man who buys a small plot of land in a locality in which he has many neighbours each bound up in his own interests and free to build where he likes and to extend his buildings as he pleases without regard to the effect of such building or extension on his neighbour's interests or on public health, convenience or safety. It is for social reformers to explain the advantages of housing societies to would-be small house-owners and to persuade owners of large estates to develop them not plot by plot as good offers come in, but in large groups of plots regularly arranged with building lines and open spaces laid down with a view to their permanent maintenance as sanitary estates for the benefit and beautification of the City.

26. Assuming then that we have got our model by-laws ; that we have made or arranged for the necessary improvement in main communications and means of locomotion ; that we have acquired and developed along the main through roads our own estates ; that our tenants either individually or through building societies have erected or are ready to erect on our estates sufficient houses for the accommodation of the people to be evicted or attracted from the congested areas ; and that we have built a sufficient number of chawls to justify a start in the dishousing of the poor, after strengthening the law so as to prevent them from merely migrating from one slum to another ; can we now at last make a substantial advance towards that ending or mending of the slums, which is the end and object of all these preparations ? Yes we can, if we have unlimited capital at our disposal. But our first difficulty will be to determine **where to begin**. There won't have been much done towards reducing congestion during the long years taken up by our preparations ; indeed if we haven't applied at the very outset the principle that bad must not be allowed to get worse, congestion so far from being reduced or checked will have spread to new areas previously unaffected. Where then are we to first acquire and demolish ? In the heart of the congested area or on the outskirts ? In the poorest quarters or in the richest ?

The answers to these questions will of course be different in different cities and vary according to varying local conditions.

27. If we find it difficult to raise the capital required for our operations, it will be best to take up the work where the initial outlay will be least, *i.e.*, in the least congested parts, which will probably be on the outskirts of the central congested area or in isolated centres where congestion is only just beginning to become serious. Here both land and houses will probably cost

less to acquire than in the centre, and a larger area can be improved with a given sum of money. Moreover, the dishousing and rehousing problem will be less formidable here than where far larger numbers have to be shifted.

28. If we have unlimited capital at our disposal, we may think it better to leave the outskirts where conditions are not so seriously in need of early improvement as elsewhere and go at once for the most congested areas which need the earliest possible reformation. It may be that by wholesale demolition over a wide area there we may succeed in removing some well-defined disease centre which is a danger to the whole city. The trouble is that this will probably involve the dishousing of a very large number of people; and we may find ourselves pulled up by the accommodation for them in new houses or in vacant rooms in old houses running short; for we mustn't suppose that houses will be built far ahead of demand; so we mustn't put too heavy a new demand upon the market all of a sudden.

29. If we have to choose between one specially congested spot and another, we shall do well to choose that in which *ceteris paribus* the buildings are arranged in regular lines to one in which they are in higgledy-piggledy disorder; for in the former such improvements as the substitution of sewers and water-closets for overground drainage and privies can usually be far more easily, rapidly and cheaply carried out than in the latter. In the former the whole character of the slum may be changed and immense improvement effected by merely clearing a 20-feet space between the backs of the houses, laying a sewer there below ground and converting the surface into a children's playground, while at the same time supplying houses on both sides with means of perfation of air between them and admitting ample light and air to all the back rooms, whereas previously the front rooms were the only rooms in the house which were properly lighted and ventilated. Here one great advantage will be that dishousing will be reduced to a minimum. The contributions to the 20-feet open space will consist of 10-feet from either side of the common boundary. Those houses which have been built right up to the boundary will have their accommodation reduced by a room or two on each floor, while some of those behind which some open space has been reserved will escape untouched. In godown localities with narrow streets and deep houses, the 20-feet space may with advantage be converted into a public street to provide access for carts to godowns in the rear of the houses. This will greatly relieve congestion of traffic due to carts standing in front streets and will also in many cases bring the value of the curtailed house up to considerably more than that of the original house.

30. In such cases, if prime cost is of no account to us, we may do well to acquire the whole of each house and sell the remodelled house after our improvements are completed; but there are many objections to local authorities being large owners of house property, especially of *old* house property, to which many risks attach; **so in my opinion it would be better to follow the policy of limiting expropriation to the minimum necessary and to acquire and demolish only the part of the house required for absorption in the central 20-feet passage, leaving the original owner in possession of the remainder.** If, however, the law permits

this, it should also provide that in assessing the compensation to be awarded for interference with the property the effect of the new passage in increasing the value of what remains of the house should be taken into consideration. It should then be possible to effect very far-reaching improvements at comparatively small cost in initial outlay.

31. In most Indian cities the resources of the local authorities are so exiguous that it is of the greatest importance to reduce the initial outlay on slum improvement as far as possible; so we shall in most cases find it the best policy, first to complete all the arrangements detailed in the earlier part of this paper for checking the spread of congestion, preventing bad from getting worse, attracting or driving people away from the slums by improving main roads, laying out new estates along them, building chawls for the poor just outside the congested area, closing rooms as U. H. H. and preventing overcrowding, and then to start the direct attack on slums by acquiring and demolishing houses in the least congested areas, with a view to providing sanitary estates just outside the central slums. By the time these new estates are developed and occupied, standards of wages and comfort will, if social reformers have not been idle in the interval, have risen considerably. Owners of bad houses in the central slums will, it may be hoped, have found it necessary to reduce their rents in order to reduce their vacancies, and the cost of acquiring these central slums will thus have been considerably reduced. At the same time the dishousing problem in them will have become less difficult, because there will, as the result of closure of U. H. H. rooms in the earliest stages of our campaign (*vide* para. 22), be fewer people to dishouse, and sanitary accommodation will be available for them much nearer their old haunts than if we had started our operations right in the centre. It will, therefore, be easier to deal with the higgledy piggledy slums, and schemes for driving good straight roads through them to connect the new sanitary estates on either side with one another, though they will entail considerable initial outlay, will probably yield a profit in the end. Meanwhile these areas need not be left wholly untouched; there is no objection to dishousing a few families at a time: so every opportunity should be taken to improve conditions by removing obstructive houses here and there and converting their sites into open spaces (*cf.* para. 8).

32. I feel quite sure that this is the policy which will have to be ultimately adopted in Bombay; but this evening I have been dealing with the *general* problem. I have already encroached too long upon your patience, and I therefore propose to defer considering the particular problem of Bombay slums to another occasion. Meanwhile I hope there are some of my audience who will be able to spare time to look at the plans and models which I will now show them with a view to explaining some of the points discussed in this paper.

J. P. ORR.

Bombay, 3rd September 1917.