
III. Compensation and Resettlement Assistance

Involuntary resettlement (IR) usually consists of two distinct yet related social processes: first, displacement of people due to expropriation of land through use of eminent domain; and second, reconstruction of APs' losses by (i) short-term measures such as compensation, R&R assistance in the form of shifting allowances, subsistence allowance, and transitional allowance; and (ii) long-term measures such as alternative income restoration schemes. This chapter deals with the process, adequacy, and constraints of short-term measures.

A. Compensation for Immovable Properties

1. ADB's IR Policy Provisions on Compensation

In this section, three key principles in ADB's involuntary resettlement policy relating to compensation for acquired property are used as the basis for reviewing current resettlement compensation in the highway sector.

- a. **Principle 1:** "If individuals or a community must lose their land, means of livelihood, social support systems, or way of life in order that a project might proceed, they should be compensated and assisted so that their economic and social future will generally be at least as favorable with the project as without it. Appropriate land, housing, infrastructure, and other compensation, comparable to the without project situation, should be provided to the adversely affected population, including indigenous groups, ethnic minorities, and pastoralists who may have usufruct or customary rights to the land or other resources taken for the project."

This establishes ADB's bottom-line principle on compensation for loss of assets as a result of government expropriation: whenever resettlement

is unavoidable, APs' livelihoods should not be worse because of involuntary resettlement. Flowing from this, determination of compensation for lost assets should be based on replacement value. "Replacement cost, according to ADB's Operations Manual F2 on Involuntary Resettlement (2006), means the method of valuing assets to replace the loss at market value, or its nearest equivalent, plus any transaction costs such as administrative charges, taxes, registration, and titling costs. Where national law does not meet this standard the replacement cost will be supplemented as necessary. Replacement cost is based on market value before the market or dispossession, whichever is higher. In the absence of functioning markets, a compensation structure is required that enables affected people to restore their livelihoods to levels at least equivalent to those maintained at the time of dispossession, displacement, or restricted access." Replacement value can mean either replacing the asset with an asset of similar quality and quantity or with monetary compensation. Thus, the market cost in ADB's definition of replacement value refers to the market cost of the replacement land, not necessarily the land that is lost.

- b. **Principle 2:** "The absence of formal legal title to land by some affected groups should not be a bar to compensation... Particular attention should be paid to the needs of the poorest affected persons including those without legal title to assets, female-headed households and other vulnerable groups, such as indigenous peoples, and appropriate assistance provided to help them improve their status."

In many Asian countries, rights to land (especially rural land) are poorly documented. Possessors without formalized rights are common, including tenant farmers, customary users, and so-called encroachers and squatters. It is not uncommon that long-term possessors

with customary rights accepted by the local community do not have formalized rights officially recognized by the Government. Many such people who do not have formal legal title to the land to be expropriated will nonetheless be negatively affected by expropriation.

ADB's policy states that all "affected persons" are eligible for compensation irrespective of legal or ownership titles. ADB's Operations Manual F2 defines APs as "...any people, households, firms, or private institutions who, on account of changes that result from the project will have their (i) standard of living adversely affected; (ii) right, title, or interest in any house, land (including residential, commercial, agricultural, forest, and/or grazing land), water resources, or any other moveable or fixed assets acquired, possessed, restricted, or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence, or habitat adversely affected, with or without displacement."

- c. **Principle 3:** "The affected people should be fully informed and closely consulted on resettlement and compensation options. Where adversely affected people are particularly vulnerable, resettlement and compensation decisions should be preceded by a social preparation phase to build up the capacity of the vulnerable people to deal with the issues."

APs' access to information, full participation in the expropriation process, and ability to enforce their rights are not only a component of democratic development, but also an effective institutional check on the Government's expropriation power. ADB's policy is to counterbalance this power imbalance in the Government's favor by empowering the stakeholders to effectively defend their entitlement to fair and just compensation under the rule of law.

2. Assessment of Compensation

a. Compensation for Land

Under the Land Acquisition Act, 1894 and the National Highways Act, 1956, during acquisition of private lands by the state, the consent of the landowner is not necessary. The person will lose the land even if he or she does not want to part with it. In addition, during fixing of the compensation amount the landowners' objections and opinions are heard, but it is not necessary for

Box 2: Western Transport Corridor vs Third National Highway Project—Payment of Solatium

In the Western Transport Corridor the entire land was acquired under the National Highways Act, whereas in the Third National Highways Project both the Land Acquisition Act and the National Highways Act were used in land acquisition. Although according to the National Highways Act, 1956 no solatium and interest have to be paid, the competent authority in the Western Transport Corridor paid 30% solatium as part of the compensation. In the Third National Highway Project however, solatium was not paid in stretches where the National Highways Act was applied. But an additional 10% was paid out to every titleholder even if the damage had not occurred. In another Asian Development Bank-funded project (Porbandar-Deesa-PPP project), solatium is paid even though land is acquired under the National Highways Act, but no additional amount is being paid to top up the compensation as replacement value over and above the compensation.

Source: RETA field survey, 2004–2005.

the amount quoted by him or her to be agreed to. The landowner thus has no control over his or her right of ownership or over the level of compensation. It may be said therefore that compensation is not a price. This problem with compensation has contributed to unsuccessful development-induced displacement experiences in India. These are due to defects in both the legal framework and, particularly, its implementation. India's statutory compensation standards fall short of ADB's policy on involuntary resettlement in several respects.

The Land Acquisition Act stipulates that, while determining compensation, the market value prevailing on the date of preliminary notification, Section 4(1), should be taken into consideration. Compensation is based on five components: (i) market value; (ii) 30% solatium as "solace" for compulsory acquisition of land; (iii) damages incurred; (iv) shifting allowance; and (v) interest for the delay, at 12% annual interest on the market value calculated as the time between the Section 4(1) preliminary notification and the date of the award. Interest does not accrue during any period during which proceedings are held up on account of a court-ordered stay or injunction. There is a slight difference between the Land Acquisition Act and the National Highways Act for calculation of compensation: the latter does not include the 30% solatium and interest.

However, determination of market value often leads to under compensation. The Land Acquisition Act neither defines market value nor specifies the mechanism to determine this. Market value has been construed in many Supreme Court decisions, as in *Vejra Vellu v Special Deputy Collector*, and *State of West*

Bengal v Bela Banerjee. In these cases the Supreme Court discussed the scope of market value and laid down the principles to be taken into account, the elements which make up the true value of the properly appropriated land and excluding matters which are not relevant. The Supreme Court in 1995 defined market value as the price that a willing seller might reasonably expect to obtain from a willing purchaser. Potentiality of land is also to be considered based on the available material (*Ravindra Narayan v Union of India*). The compensation—determination of market value—should be based on the comparable sales method and some element of guesswork is always involved in what is valid; such guesswork must be based on a firm foundation consisting of the totality of the evidence, including the sale price of comparable land and escalation of price of comparable land. The appreciation in value for every subsequent year after the base year should be taken into account (*Kashiben Bhikha Bai v Special Land Acquisition Officer, Land Acquisition Officer v Vijendra Reddy, and Special Land Acquisition Officer v Md. Hanif Saheb Baba Saheb*).

In the above court decisions one of the basic principles delineated is that land that is to be acquired should be evaluated at the present value, meaning that if the nature of the land has changed it should have no bearing on the valuation of land. The critical question in this regard arises when some individuals improve the land and then there is no method to value such enhancements. Yet the standard of market value—despite the valuation method used to define it—is a fundamentally different approach from the standard of replacement cost. Court decisions have generally accepted three different valuation methods for determining market value: (i) sales statistics method; (ii) capitalization of income from land; and (iii) expert assessment. The three methods, and their advantages and disadvantages, are discussed below.

(i) Sales Statistics Method

The registered sale price can be taken as an adequate indicator of market value of a given piece of land. Sale prices of those lands that are comparable in time and quality are only to be considered. The following steps are involved in calculating compensation according to the sales statistics method. (This method was used in both TNHP and WTC to arrive at the compensation value, irrespective of the acts used.)

Step 1: Collect statistics of sales of land/buildings

adjacent to ones being acquired in 3–4 years preceding Section 4(1) notification from the registration department

Step 2: Work out the average of 3–4 years per acre/hectare

Step 3: Calculate the average price (AP) + 0.3 AP + 0.12 AP per annum from the date of Section 4(1) notification to date of award to arrive at compensation

Step 4: Add damages, if any, or incidental, if any

Step 5: Calculate interest from date of award at 9% for first 12 months and 15% for the period thereafter

(ii) Capitalization Method

Where reliable information is unavailable on the prevailing market value of the land, capitalization method is used to decide compensation. Following steps are involved in calculating compensation according to capitalization method. (This method was used in both TNHP and WTC to arrive at the replacement value.)

Step 1: Gross Income – Cost = Net Income

Step 2: Net Income x Multiplier = Market Value (MV)

Step 3: MV + 30% of MV as solatium + 12% of MV per annum as Additional Market Value = Compensation

Step 4: Compensation + Damages / incidental + interest

There are no fixed limits on the choice of the multiplier. It is based on conjectures or precedents. Recently, these multipliers have ranged between 10 and 20 times. For buildings based on net rental income, a multiplier of 15 or 20 is used. In assessing the value of plantation or horticultural crops, generally a multiplier of 10 is acceptable.

(iii) Expert Assessment

Assessment of certain horticultural crops, plantation crops, buildings, waterways, bunds, etc., requires special expertise. Professional valuers are used for such immovable properties. Valuers take into account the longevity, health, and expected yield levels while assessing income and standard practices along with age. Experts use certain multipliers to arrive at a capitalized value of the assets. The multiplier generally relates to the remaining period in the longevity of the structures or remaining age of the crops or rental expected.

(iv) Consent Award

Negotiated settlement of compensation stands on a footing different from those of other methods. The essential elements are:

- The landowners and the collector reach an agreement on the matter to be included in the compensation;
- The terms of such agreement form the basis of the award and no further enquiry is necessary; and
- Other provisions of the Act do not apply.

The consent of the landowner is essential to finalize such awards. Once consent is obtained it cannot be questioned at a later stage. This process comes very close to the market mechanism, where buyers and sellers negotiate the price. It also provides an opportunity to the landowners to participate in the process of determining compensation.

This method was not used in any of the case study highways, but has been successfully used by Uttar Pradesh Public Works Department for State Roads Project (Appendix 3). NHAI is now using it for the Allahabad Bypass Project.

b. Compensation for structures

The valuation of structures (both commercial and residential) is carried out by the Public Works Department based on their schedule of rates. The

schedule is revised every year and therefore the valuation is quite close to market value. But, if the project is not funded by multilateral agencies, final compensation is worked out on depreciated value of the property and not the replacement cost.

3. Constraints in Assessing Compensation

The valuation of land is riddled with a number of constraints, as described below.

- (i) Compensation for land is worked out based on the sales statistics method, which is based on recorded sales value of at least the last 5 years. The problem with this method is the occurrence of understated values in sales deeds, given to avoid stamp duty. Sales statistics, as the only recorded document for land values, are routinely used by land acquisition officers (LAOs) who apply the comparable sales valuation method to determine compensation. As a result, compensation is undervalued and the gap between compensation and replacement value widens, creating administrative problems for the project authority.
- (ii) Many long-term, but nonformalized, possessors of land do not receive compensation because their rights are not formalized. Examples include the *lal dora* or *gair majoorba* land in TNHP and *paramboke* land in WTC, where individuals do not have any legal document to claim ownership, though they have been living there for generations. Because entitlement to compensation for compulsory acquisition is based on land records, these deficiencies can result in delays, and nonformalized occupiers not receiving compensation.

Box 3: Compensation Calculation for Structures

In the Western Transport Corridor and Third National Highway Project, nongovernment organizations engaged to implement resettlement, used government-approved independent valuers who work out compensation for structures on prototype basis without depreciation.

Source: RETA field survey, 2004–2005

Box 4: Compensation Process

In both the Western Transport Corridor and Third National Highway Project, the sales statistics method was used to arrive at compensation. Since the amount was undervalued, compensation was topped up with resettlement and rehabilitation assistance to bridge the gap.

Source: RETA field survey, 2004–2005.

Box 5: Use of Grievance Redress Cell to Unclear Cases

In package V.C of the Third National Highway Project, 126 cases of informal possessors were identified. The nongovernment organization took all those cases to the grievance redress cell, which in 58 cases ruled in favor of affected persons, who were then compensated as titleholders. Other affected persons received resettlement and rehabilitation assistance and were covered under the livelihood loss category. No such instances were found in the Western Transport Corridor.

Source: RETA field survey, 2004–2005.

- (iii) Lack of updated land records is also a major problem. For example, the original owner may have died, the land has passed to heirs, but this transfer was never reflected in the land records. Or, land has been transferred to the new owner through an unregistered sales deed. The implementing NGO in package 5 of TNHP updated 1,258 cases during the survey.
- (iv) Customary use and access rights to common property resources are not compensated. The statutory compensation provisions do not apply even though access to such resources plays an important role in the livelihoods of poor people, particularly in rural areas. However, in both TNHP and WTC, although compensation was not paid, access to most of the common properties, temples, and schools has been restored through an environmental management plan.

Box 6: Use of Highway Projects to Update Land Records

In package V.C of the Third National Highway Project, land use was updated at the time of the survey of land under Section 4(1) of the Land Acquisition Act or Section 3B of the National Highways Act.

Source: RETA field survey, 2004–2005.

- (v) Changed land use is one of the most critical issues in the land acquisition process and affects the amount of compensation. Over the years land use may have changed and at the time of valuation the basis of compensation is the land use mentioned in the original records available with the competent authority. (Numerous such cases have been identified in case study highways.) This leads to dissatisfaction among the titleholders and users of such land. The Land Acquisition Act is silent on the issue of changes in land use. However, in Section 23 it defines the matters to be considered in determining compensation and clearly states that it should be the market value of the land at the date of publication of notification under Section 4(1), i.e., the cutoff date.

- (vi) “Unclear title” is a generic description that includes numerous types of title.³ The problem with unclear title is that compensation is not paid to “titleholders” either under the Land Acquisition Act or the National Highways Act. However, the Orissa State Tribal People and Encroachment of Forest Land Act (1972) recognizes the rights of non-titleholders and scheduled tribe groups to the effect that, whosoever has occupied/used any specific land for 30 years would be entitled to ownership and thus eligible for compensation. But most states do not cover the matters related to unclear titleholders. The critical issue with unclear title relates to people receiving settlement lands, e.g., *Parwanas* (government-settled land), *Abadi* land (where the Government settles people), and *Bhudaan* (where the landless are given land from village common land).
- (vii) The competent authority under the Land Acquisition Act does not have to pay compensation for this land, as this is not transferable and not saleable. However, this contention is incorrect because they are the interested persons as defined under sections 3 and 9 of the Land Acquisition Act and under Section 3B of the National Highways Act. In TNHP, APs have been paid compensation for *Abadi* land and *Parwanas*.
- (viii) Delayed payments may also be construed as undercompensation. Discussions with competent authorities and NGOs reveal that payment of compensation may be delayed for various reasons:

- Verification of joint *khatas* (title) takes time, and unless it is done, the compensation amount cannot be paid to just one individual;

³ It includes: want of clearness of definiteness of title records (ambiguous title); titles that are the subject of litigation, for example, encroachment under dispute (disputed title); land purchase under breach of faith, for example an acquired land resold (defective title); title, validity of which there exists some doubt, i.e., apportionment of compensation under section 11A (doubtful title); where some defect of substantial character exists and facts are known that fairly raise reasonable doubt as to title (unmarketable title); wanting in some legal sanction or effectiveness, as in speaking of imperfect “obligation”, “ownership”, “rights title”, “usufruct” (imperfect title); one that conveys no property to the purchaser of the estate (bad title); title, which is of the very lowest order, that arises out of the mere occupation or simple possession of property, without any apparent right or any pretence of right, to hold and continue such possession (presumptive title); and the right, which a possessor acquires, to property by reason of his adverse possession during a period of time fixed by law (title by prescription). People having presumptive title or title by prescription are treated as encroachers or squatters under the State Encroachment Act.

- Partition disputes linger on for years. The disputes among landowners are a major cause of delay in land acquisition;
 - The civil court procedures for settling a dispute are time consuming. Unless the courts settle disputes, the compensation cannot be paid. As was the case in both highway projects studied, some land parcels were disputed. It took more than 8 months in TNHP and almost a year in WTC to resolve the issues.
 - Lack of adequate coordination between competent authorities and district/*Taluk* (block) revenue authorities hinders speedy disposal of land acquisition cases. It is the *Tehasildar* (field revenue official) in the *Taluk/Tahasil* who maintains the essential land records, and the competent authority can proceed only with access to updated records.
 - For valuation of land and other properties, competent authorities need to coordinate with a number of other agencies, and poor coordination is often the cause of delays. For example, the competent authority depends on the Forest Department for the value estimates of forest trees, on the Horticulture Department for fruit trees, on NGOs for structures, and on the Public Health Engineering Department for bore wells.
 - Frequent transfers of the special land acquisition officer; the archaic system of keeping land records (both National Highway 2 as well as WTC); and the fact that the competent authority also holds the post of contract resettlement and rehabilitation officer (CRRO) and “manager, technical”, resulting in lack of time (TNHP)—also lead to delays in land acquisition and create problems in computing compensation.
- (ix) The National Highways Act does not provide for the 30% solatium, yet the Land Acquisition Act provides for a solatium equal to 30% of the market value. However, in WTC the competent authority added a 30% solatium (though this does not happen for every NHAI project).

4. Process of Compensation Payment

The case studies (TNHP and WTC) and experience from other road projects show that the following process is adopted for the disbursement of compensation.

Under the National Highways Act, within 1 week of 3D notification, NHAI deposits an estimated amount in the joint account of NHAI’s project director and competent authority (as in WTC and package V.A and V.C in TNHP). Under the Land Acquisition Act, after declaration under Section 9, NHAI deposits the entire amount with the Revenue Department. On depositing the amount either in the joint account or with the Revenue Department as the case may be, a date and place is announced along with the list of documents the APs are supposed to bring with them on the day of check disbursement. After declaration of individual awards (i.e., 3G under the National Highways Act and Section 11 under the Land Acquisition Act), a karamchari from the Revenue Department visits the village to identify and certify the titleholders. In case the competent authority is from NHAI (e.g., in WTC and package V.C in TNHP), identity cards issued by NHAI are sufficient for identification. During individual distribution of checks to titleholders, NGOs play a major role. It is the NGO that brings the titleholders to the camp, identifies them, and also signs as witness. It is only after payment of compensation that notices to shift are served.

In WTC, an elaborate administrative procedure was adopted, designed to ensure that compensation is paid to the person entitled to it. The competent authority was given a dedicated office in Davangere and was made responsible for all four districts, i.e., Davangere, Haveri, Chitradurga, and Tumkur. The competent authority first issues an award notice to the titleholder, indicating the compensation amount due, and calling upon him to appear in his office personally with documentary proof of identity as the rightful claimant of the compensation amount. The documents furnished by the titleholder then undergo a process of rigorous scrutiny in the office of the competent authority. When the competent authority is satisfied that the documents are genuine, the titleholder is handed the check. But this is not all. The titleholder is asked to furnish a guarantee that he will refund the amount if he is later found not to be the rightful claimant. While there is nothing wrong with the procedure adopted by the competent authority, it is important that there be transparency in the whole process.

This rather elaborate procedure is not the only reason for the slow disbursement of compensation. Since the competent authority was entrusted with the responsibilities of all four districts, disbursement was delayed. While this made the task of the competent authority hugely burdensome, it also added considerably to the inconvenience of the titleholders. In order to collect the compensation check from the competent authority based in Davangere, APs needed to travel a long distance—and not just once. If the competent authority raised queries on the authenticity of the documents, the titleholder had to come back, with additional papers to prove the claim.

5. Compensation for Immovable Property: Empirical Findings

a. Coverage

Primary surveys were carried out in both TNHP and WTC, covering 1,112 and 1,203 APs, respectively. The distribution of respondents is given in Table 6.

Three different categories of APs were covered in both case studies: titleholders who received compensation, replacement value as well as assistance; non-titleholders who received replacement value for their structures and resettlement assistance but not compensation for land; and non-titleholders who only received shifting allowance and/or economic rehabilitation grant.

b. Compensation received

A titleholder in TNHP received an average of Rs49,361 as compensation for land; the equivalent in

WTC was Rs83,497. The compensation amount in both projects was disbursed in one single installment. The difference in amount of compensation probably explains why in TNHP, 670 court cases and five arbitration cases were registered, seeking enhanced compensation, as against none in WTC. However, in the sample packages of TNHP only 10 court cases were recorded.

c. Level of satisfaction

As Table 7 shows, the level of satisfaction was found to be much higher in WTC than TNHP. Roughly 6% of the APs in WTC were dissatisfied with their compensation compared with 44% in TNHP. Over half of the titleholders in WTC were very satisfied with their compensation compared to less than 10% in TNHP.

B. Replacement Value

Replacement value is the amount that is sufficient to purchase a land or a structure of the same size and quality as the one that was acquired. Because compensation paid for land is always less than the market value, NHAI tops it up with R&R assistance. Replacement value, however, is usually paid only in projects funded by multilateral agencies that have policy requirements for IR. Discussions with NHAI, NGO representatives, and competent authorities revealed that three methods were used to arrive at replacement value, namely: sales statistics method, circle rate (valuation of property established by an administrative area such as a block), and agricultural productivity rate. The highest of the three was paid as compensation. Compensation arrived at using the sales statistics method was the

Table 6: Distribution of Affected Persons in the Case Studies

Sl. No	Categories	TNHP	%	WTC	%
1	Titleholders who received compensation and replacement value for land and /or structures, and other assistance	341	30.67	557	46.31
2	Non-titleholders who received replacement value for land and/or structures, and other assistance	537	48.29	357	29.65
3	Non-titleholders who received only R&R assistance	234	21.04	289	24.04
	Total	1,112	100.00	1,203	100.00

R&R = resettlement and rehabilitation, TNHP = Third National Highway Project, WTC = Western Transport Corridor.

Source: RETA field survey, 2004–2005.

Table 7: Satisfaction with Compensation

Sl. No.	Degree of Satisfaction with Compensation	TNHP		WTC	
		Number	% of total	Number	% of total
1	Very satisfied	31	9.09	284	50.92
2	Somewhat satisfied	43	12.61	201	36.20
3	Neither satisfied nor dissatisfied	117	34.31	41	7.36
4	Dissatisfied	97	28.45	31	5.52
5	Highly dissatisfied	53	15.54	0	0.00
	Total	341	100.00	557	100.00

TNHP = Third National Highway Project, WTC = Western Transport Corridor.

Source: RETA field survey, 2004–2005.

lowest followed by the circle rate, with the agricultural productivity method the highest. In TNHP, the difference between the compensation paid and replacement value calculated was 2.5 times. Compensation through the circle rate worked out at Rs22 per m² whereas based on the agricultural productivity method it was Rs55 per m², so NHAI paid Rs33 per m² as replacement value. In WTC, the difference was about 1.5 times.

The RETA theme emphasizes that compensation at replacement value and measures to restore living standards and livelihoods should be delivered at the same time to ensure that land acquisition and other resettlement effects will not disadvantage project-affected persons. NGOs and NHAI officials, however, point out that this is not possible. The reason is that preparation of the micro plan for titleholders (the basis for all entitlements) can start only after the declaration of compensation awards by the competent authority. Until that time, the final list of titleholders cannot be prepared. It takes at least 2 months to prepare the micro plan, which requires clearance from NHAI headquarters, which takes at least a month. Therefore the minimum gap between payment of compensation and disbursement of other assistance is 3 months.

1. Current Methodology for Calculating Replacement Value

The competent authority for both stretches of highway used the circle rate to arrive at the compensation value. The replacement value was worked out by NGOs in consultation with the district agriculture and horticulture department. To arrive at the replacement value, NGOs used different methodologies in different packages. In package IV.B and D of TNHP, primary data

were collected whereas in package V.A and C and in WTC, secondary data were used. Both methods are described below.

a. Primary data methodology

All villages coming under land acquisition were visited and landowners in all land categories, i.e., marginal, small, and large, were sampled. Care was taken to ensure that both irrigated and unirrigated land was covered in the sample.

Pretested structured questionnaires on inputs of agriculture were filled, supplemented by interviews with landowners. Cropping patterns were studied in a fixed unit of land.

Stage 1

Data on inputs and outputs for each major crop were collected. Input data included cost of irrigation, labor, pesticides, fertilizer, and seeds. Output data were production in quintal per unit multiplied by market rate of the produce and by total extent of the land. The market rate considered was the minimum support price for the product in the current year.

Stage 2

If output is Y and input is X, then $Y - X = Z$ (surplus)

Stage 3

Replacement Value = $Z * 20$ (number of years)

There are two main weaknesses in the methodology: (i) interviews with landowners require strong documentary support, which was not done here;

and (ii) in the input data, the opportunity cost of the land was not added.

b. Secondary data methodology

In WTC and rest of the packages of TNHP, NGOs used secondary data to calculate input and output cost. Secondary data were collected from the District Statistical Handbook. Data for the last 5 years under the following heads were obtained:

- (i) Total area and total cultivated area;
- (ii) Yield per hectare; and
- (iii) Price of the produce per quintal.

The yield per hectare was multiplied by the market rate and multiplied by 20 (number of years) to arrive at the replacement value. For yield, NGOs considered the weighted average yield for the last 5 years.

c. Suggested methodology

It is suggested that a mix of both methods be followed. Primary data are important as they cover all types of land tenure whereas secondary data can be used to cross check the data collected through primary surveys. However, the best solution to arrive at compensation is to use consent award or acquisition through negotiation.

2. Land Acquisition through Negotiation

Land can be acquired by mutual negotiation between the landholder and NHAI and for this, the following procedure can be followed:

- (i) Obtain no objection to negotiated purchase in writing from the titleholders;
- (ii) Send the consolidated proposal to the district magistrate;
- (iii) The district magistrate constitutes a committee comprising an additional district magistrate, subdivisional magistrate, NHAI representative, and public representatives for fixing compensation rates. Actual transaction rates of similar land for the last 3 years, for which sale deeds are registered, form the basis of the rate;
- (iv) After detailed discussion the district magistrate decides and approves the rate;

- (v) Thereafter the sales deeds between titleholder and NHAI are registered;
- (vi) Payment is made after registration of the sale deed and possession is taken; and
- (vii) The consent letter from the titleholder is valid up to 90 days for registration of the sales deed, payment, and taking of possession.

Uttar Pradesh Public Works Department has already acquired land through negotiation for Bangar-mau bypass under the Uttar Pradesh State Roads Project without a single court case (see Appendix 3). NHAI has now started using this for its Allahabad Bypass Project.

It is important in these transactions that APs are able to negotiate effectively with full knowledge of land values and with transparency. If, on the other hand, there is an imbalance of power between officials and APs, there is the potential for lower compensation through negotiated purchase.

3. Calculating Value of Government Land

In cases of transfer of government land to another government department, the following method is being used to arrive at the value. This method can also be used for arriving at the replacement value of private land.

- (i) Sales deed rate (as worked out by the competent authority) multiplied by total area to be transferred = X
- (ii) 5% of X capitalized by 25 years = Y
- (iii) X + Y = cost of the land to be transferred.

C. Resettlement and Rehabilitation Assistance

1. A Comparative Analysis between TNHP and WTC

R&R assistance in both case study highways included shifting allowance, transitional allowance, economic rehabilitation grant, training, replacement value, and rental allowance for tenants.

- (i) Shifting allowance of Rs500 was paid to those who were displaced including kiosk owners in both TNHP and WTC. In WTC, kiosks were also paid a lump sum of Rs2,000 for disruption of business, but not in TNHP.

- (ii) In WTC, a transitional allowance of Rs2,000 was paid for periods varying from 6 months to 9 months to both titleholders and non-titleholders, according to the degree of loss. Even kiosk owners were paid the transitional allowance for 1 month. No transitional allowance was paid in TNHP.
 - (iii) An economic rehabilitation grant was paid to those losing livelihoods in both projects. The difference was, while in WTC the grant was paid to all those who lost their livelihoods, in TNHP it was paid only to vulnerable APs.
 - (iv) Training was provided to all APs losing livelihoods in both projects, but in WTC the training allowance was Rs3,000 per AP and in TNHP it was Rs900 per AP.
 - (v) Replacement value was paid in both projects for land as well as structures. Encroachers and squatters were paid only replacement value for structures and no compensation for land.
 - (vi) Resettlement assistance was much more comprehensive in WTC than in TNHP.
- (i) The first step is to distribute identity cards and open joint accounts for the APs entitled to assistance. The account is jointly held by the CRRO/DRO of NHAI, the representative of the NGO, and the AP;
 - (ii) After opening the account, payment is made in the form of bearer checks. For squatters, vulnerable encroachers, and titleholders, the checks are deposited in the joint account. The bearer checks for the lump-sum amount of Rs500 is distributed as shifting assistance to all the *gumti* (kiosk) owners at a public meeting in the presence of the additional district magistrate and the District Resettlement Officer/CRRO;
 - (iii) Economic rehabilitation grant and replacement costs are paid through account payee checks; and
 - (iv) Signature/thumb impression of the AP and one witness are taken as proof of receipt. On receipt of compensation/shifting allowance, a notice is served to the APs to relocate/shift their structures. In case any AP is unable to read, it is the responsibility of NGO and project implementation unit (PIU) to read out to such APs.

2. Disbursement of Assistance

The project implementation unit disburses assistance to both non-titleholders and titleholders. The disbursement is made on the basis of the micro plans, which have complete details about APs regarding their socio-economic status, and the compensation and assistance to which they are entitled. The process of disbursement of assistance was similar in both projects. The process is described below:

3. R&R Assistance: Empirical Findings

Table 8 shows the number of installments for disbursement of assistance.

Though compensation was paid in one single installment to all the titleholders, only 17% of the APs in TNHP and 19% APs in WTC received their

Table 8: Disbursement of Assistance

Sl. No.	Number of Installments	TNHP		WTC	
		Number	%	Number	%
1	One	189	17.00	229	19.04
2	Two	256	23.02	373	31.00
3	Three	545	49.01	517	42.98
4	More than Three	122	10.97	84	6.98
	Total	1,112	100.00	1,203	100.00

Sl No. = Serial number, TNHP = Third National Highway Project, WTC = Western Transport Corridor.
Source: RETA field survey 2004–2005.

R&R assistance in one single installment. A majority received their assistance in three installments. These are primarily APs who received their replacement value for structures to match with their construction progress.

Table 9 shows that about half of the APs (48% APs of TNHP and 54% APs of WTC) received their first installment immediately. About one third received it in 3 months in both projects. However, 7% of APs in TNHP and about 3% in WTC had to wait for almost a year to receive their first installment.

About 63% of APs in TNHP and over 70% APs of WTC received their subsequent installments within

a month and another one fifth received it within 6 months (Table 10).

The economic rehabilitation grant was, however, paid in one single installment after APs provided their plan for utilization of the funds in an economic activity.

Table 11 shows that satisfaction with resettlement assistance was better in WTC than in TNHP. About 15% of APs in TNHP and about 5% in WTC said assistance did not help them in coping with immediate loss. However, 85% APs in TNHP and 96% of APs in WTC reported positively about the assistance.

Table 9: Time Taken to Release First Installment

Sl. No.	Time Taken	TNHP		WTC	
		Number	%	Number	%
1	Immediate	443	48.00	526	54.00
2	Less than 3 months	258	27.95	321	32.96
3	3 to 6 months	157	17.01	97	9.96
4	6 to 12 months	65	7.04	29	2.98
5	More than 12 months	0	0.00	0	0.00
	Total	923	100.00	974	100.00

Sl No. = Serial number, TNHP = Third National Highway Project, WTC = Western Transport Corridor.

Source: RETA field survey 2004–2005.

Table 10: Time Taken for Payment of Subsequent Installments

Sl. No.	Time Taken	TNHP		WTC	
		Number	%	Number	%
1	Less than 1 month	581	62.95	692	71.05
2	1 to 6 months	194	21.02	214	21.97
3	6 to 12 months	120	13.00	49	5.03
4	More than 12 months	28	3.03	19	1.95
	Total	923	100.00	974	100.00

Sl No. = Serial number, TNHP = Third National Highway Project, WTC = Western Transport Corridor.

Source: RETA field survey 2004–2005.

Table 11: Impact of Resettlement Assistance

Sl. No.	Degree to which Assistance Helped in Coping with Immediate Loss	TNHP		WTC	
		Number	%	Number	%
1	Very much	563	50.63	793	65.92
2	Somewhat	389	34.98	353	29.34
3	Not at all	160	14.39	57	4.74
	Total	923	100.00	974	100.00

Sl No. = Serial number, TNHP = Third National Highway Project, WTC = Western Transport Corridor.

Source: RETA field survey 2004–2005.

Table 12: Comparison of Resettlement Risks in Two Projects Based on the Risks and Reconstruction Model

Risks	TNHP			WTC			Remarks
	H	M	L	H	M	L	
Landlessness			✓			✓	Risk of landlessness is low in both projects as only narrow strips were acquired. Moreover, replacement value was paid in both projects.
Joblessness		✓				✓	Vendors were resettled in vendor markets in both projects. In TNHP shop owners were provided with shops free of cost as land was given free of cost by the state government. In both projects, commercial tenants were given rental allowance until they identified new space for business. The reason why risk of joblessness is medium in TNHP is absence of transitional allowance, whereas in WTC it was paid for varying periods of 6 to 9 months based on degree of loss. Since it takes time for businesses to establish themselves in a new place, transitional allowance acted as a cushion to cope with immediate loss. However, ERG was paid in both projects to vulnerable APs.
Homelessness			✓	✓			In TNHP resettlement colonies were developed at three locations, i.e., Khatrain, Ratni, and Kanpur. Vulnerable squatters were given land free of cost by the state government. In addition, replacement value was paid to all. However in WTC no resettlement colony was constructed by NHAI. APs were given replacement value and were left to fend for themselves. Hence there is a higher risk of homelessness in WTC.
Marginalization		✓				✓	Since joblessness and landlessness were avoided through replacement value and proper R&R assistance, risk of marginalization is quite low in both projects. However, in TNHP there could be marginalization of APs for a short period as there was no transitional allowance. Therefore, in TNHP risk of marginalization is medium.
Food insecurity			✓			✓	Replacement value and R&R assistance considerably reduced the risk of food insecurity in both projects.

Table 12 continued

Table 12: Comparison of Resettlement Risks in Two Projects Based on the Risks and Reconstruction Model

Risks	TNHP			WTC			Remarks
	H	M	L	H	M	L	
Social disarticulation			✓	✓			Since resettlement colonies were constructed in TNHP and DPs were moved in a group, risk of social disarticulation is low. In WTC, no such efforts were made and DPs resettled on their own away from their peers. Hence risk of social disarticulation is high in WTC.
Increased morbidity and mortality	No risk			No risk			No incidence was noticed in sample survey—but no baseline information was available to make any comparison.
Loss of access to CPR	No risk			No risk			All CPRs affected were rebuilt and access improved under the environmental management plan.

AP = affected person, CPR = common property resource, DP = displaced person, ERG = economic rehabilitation grant, NHAI = National Highways Authority of India, R&R = resettlement and rehabilitation, TNHP = Third National Highway Project, WTC = Western Transport Corridor. H, M, L = High, Medium, Low.

Source: RETA field survey 2004–2005.

D. Acquisition of Land and Other Immovable Property: A Risk Assessment

In this section an attempt is made to assess some aspects of resettlement risks due to inadequate and delayed payment of compensation and other assistance, using the Risks and Reconstruction Model advanced by Michael M. Cernea. The usefulness of the model lies in its comprehensive approach to underlining the kinds of risks that project-affected people are exposed to and the possible reconstruction opportunities that could be created to restore and improve their livelihoods. As a result, the model is also useful for identifying major gaps in existing policy and practice regarding R&R. Table 12 provides a comparative assessment of both projects.

E. Conclusions

According to the administrative arrangements of the Union of India, land is acquired through state governments. The NHAI has to completely depend on the procedures, and practices of the state governments. In one of the packages of TNHP (V.C), the competent authority was appointed by the central Government through a notification vesting the power and authority to carry out the work related to land acquisition, whereas in other packages and in WTC,

the competent authority was from the state revenue department. In fact in WTC, only one competent authority was appointed for all four affected districts. Frequent transfers of revenue officials in charge of land acquisition, an archaic system of keeping land records, and limited time available for revenue department officials in the competent authority all delayed land acquisition substantially, despite efforts of NHAI in obtaining assistance from retired officials from the Revenue Department. This crisis management process has taught that reform is required in the land acquisition process to keep pace with the project time frame and avoid time and cost overruns.

NHAI's project-specific policies emphasize full replacement cost for land and other affected assets. The analysis shows that the projects have a relatively sound base to determine full replacement costs for land and assets. Compensation has been paid in accordance with the practices of the relevant state government and the rates are much lower than the real market rates since people often register land sales at much lower values to avoid paying higher stamp duties. However, additional assistance has been provided to top up the compensation under the Land Acquisition Act/National Highways Act, so that APs receive replacement value. Though efforts are being made to disburse compensation and other R&R assistance at one single point in time in order to ensure that land acquisition

and other resettlement effects will not disadvantage project-affected persons, procedural processes hinder the implementation (as explained earlier). Resolving

this issue must receive high priority in the context of resettlement risk management.

Box 7: National Highway No. 2— An Example of Good Practice

On National Highway No. 2 at km 479 there were two settlements, namely Gujaini and Barra, situated along a *nallah* (drain). A total of 245 mud houses were affected in both settlements. The replacement value worked out varied from rupees (Rs)8,000 to Rs15,000. The nongovernment organization (NGO) contracted for implementation of the resettlement approached the Kanpur Development Authority (KDA) and Awas Vikas Parishad to obtain costs and location of housing for economically weaker sections. Location was important to ensure that income generation opportunities for these persons were not affected. NGO located two colonies for these vulnerable groups, developed by KDA, just 250 meters away from the affected site. Since the replacement value received was too low to purchase KDA flats, the NGO explored loan options from KDA, which were refused. The NGO then approached the leading district bank, i.e., Allahabad Bank, and approached the Bank of Baroda as National Highways Authority of India (NHAI) has its account there. Both banks refused any kind of loan to project-affected persons.

The local Member of Parliament and Member of the Legislative Assembly were also approached for loans from the local area

development fund. As a last resort, the NGO then approached the Slum and Urban Development Authority, which runs a scheme called Valmiki Ambedkar Malin Basti Awas Yojana. This program is specifically for vulnerable sections of society and falls under an urban poverty alleviation scheme, which allows the Housing and Urban Development Corporation (HUDCO) to provide a subsidy of Rs25,000 to below poverty line (BPL) families.

The cost of a KDA flat was Rs85,000. The NGO appealed to the principal secretary, Urban Development, Government of Uttar Pradesh for free allotment of land. He in turn directed KDA to allot land worth Rs35,000 (a plot size of 25 square meters) free of cost to project-affected persons. For the balance of Rs50,000, the NGO secured a subsidy of Rs25,000 from HUDCO and a replacement value of Rs10,000 was added to it. KDA agreed to recover the loan of Rs15,000 from APs at a monthly installment of Rs165. The entire process took almost 9 months but 245 extremely poor people obtained not only permanent residences close to their work places but also a cleaner environment in which to live. The loan ensured that they do not need to sell their property and go back to live in slums.

Source: Operations Research Group. 2001, 2002, 2003. Third National Highway Project—M&E monthly and quarterly reports. NHAI.