futbolfutbol

WHITE PAPER · VERSION 1.2 · 11 NOVEMBER 2026

RPIX: a league-adjusted rating for players of small football nations

By **Mario Casamalhuapa**, founder, futbolfutbol

Summary. El Salvador's players are spread over leagues of very different strength, and call-ups are argued without a common yardstick. RPIX is a public 0 to 100 rating, recalculated every day, that puts minutes and output from different leagues on one scale. It weighs participation (35%), performance (45%), form (10%), market value (5%) and youth (5%), adjusts for league level, and pulls small samples toward the average with empirical Bayes, so one good week does not make a star.

On 11 November 2026, 205 of 335 tracked players met the ranking rules. 22 of the 24 players in El Salvador's November 2026 squad sit in RPIX's top 100; the two outside are goalkeepers. The same rule puts Spain's squad at 64.5, Argentina's at 58.5, Colombia's at 51.0 and El Salvador's at 29.5, with Lamine Yamal and Kylian Mbappé at 84. This paper sets out the method, today's results, its limits and the validation that comes next.

1. The problem

A small football nation's player pool is scattered. El Salvador's ranked players play in 10 leagues, from the country's own top flight to Russia's Premier League. Coaches, federations, broadcasters and fans still compare them mostly by reputation, because 900 minutes in El Salvador and 900 minutes in MLS are not the same thing, and no public number says how different they are.

Most player ratings are built for leagues with detailed event data: passes, duels, expected goals. Most of these players have only minutes, starts, goals, assists, cards and a market value, and many have a few hundred minutes. A useful rating for them must do three things: put leagues on one scale, avoid ranking a player on one lucky week, and stay simple enough to explain on air in a sentence.

2. Data

The pool is 335 El Salvador-eligible senior players, each with a per-game club record for the current season: date, competition, whether he started, minutes, goals, assists and cards. On 11

November 2026, 205 were ranked, 109 had fewer than 270 league minutes, and 21 were out for the other reasons in section 3.

SOURCE	WHAT IT GIVES	USED FOR
Club game records compiled from public sources	Minutes, starts, goals, assists and cards per game; market value; caps	P, F, M and most of R
A licensed sports-data feed, where it covers the league	Shots on target, tackles, passes, saves per game	R
Published fixtures and results	Club matches played; national-team dates	Club totals; excused absences

What is missing shapes the method. No source here has defensive actions or expected goals against, and El Salvador's top flight has no per-game statistics beyond goals, assists and cards. The coverage rule below keeps a player from looking better because the data says less about him.

3. Method (RPIX 2.7.0)

RPIX is a weighted sum of five parts, each on 0 to 100. Playing and producing, P and R, are 80% of it.

$$\mathrm{RPIX}_i = 0.35\,\mathbf{P}_i + 0.45\,\mathbf{R}_i + 0.10\,\mathbf{F}_i + 0.05\,\mathbf{M}_i + 0.05\,\mathbf{J}_i$$

League levels

Each competition c has a level L_c between 0.20 and 1.00. $\bar{L}_i$ is the player's minutes-weighted mean level. The same minutes count for more in a stronger league: playing every minute in El Salvador weighs the same, in participation, as 41% of the minutes in MLS, 50% in the USL Championship or 70% in MLS Next Pro.

LEVEL	LEAGUES
1.00	Top five European leagues (England, Spain, Germany, Italy, France)
0.85	MLS; top flights of Poland, Slovakia, Russia
0.75	Primera A, Colombia
0.70	USL Championship, Liga MX, Poland's second tier
0.50	MLS Next Pro; top flights of Costa Rica, Guatemala, Honduras, Panama
0.35	Primera División, El Salvador
0.20	Segunda División, El Salvador

Participation (P, 35%)

The share of his club's league minutes he played, weighted by level and by the share of games he started, S_i. Here m_{ic} is his minutes in competition c and g_c his club's matches played.

$$\mathbf{P}_i = 100 \cdot \frac{\Sigma_c \min(m_{ic},\, 90\, g_c) \cdot L_c}{\Sigma_c\, 90\, g_c} \cdot (0.90 + 0.10\, S_i)$$

Performance (R, 45%)

For each statistic k of the player's position group (forward, midfielder, full-back, centre-back, goalkeeper), the per-90 rate is shrunk toward the group mean μ_k with a Poisson-gamma model. Here e_i is minutes divided by 90, and τ_k^2 is the true spread between players left after the luck expected from minutes, calibrated per position on 369 players of El Salvador and Guatemala. κ_k is then the weight of the average, in full matches. The percentile π_{ik} is read from the estimated talent distribution.

$$\hat{r}_{ik} = \frac{n_{ik} + \mu_k\, \kappa_k}{e_i + \kappa_k}, \quad \kappa_k = \frac{\mu_k}{\tau_k^2}, \quad \pi_{ik} = 100 \cdot F_{\Gamma}(\hat{r}_{ik};\, \mu_k\kappa_k,\, \kappa_k)$$

Ratios (pass accuracy, penalty saves) use the beta-binomial equivalent. Discipline counts yellow cards, plus 3 per red and 2 per own goal, lower being better. Position weights w_{gk} combine the percentiles (for a forward: goals 0.40, assists 0.25, shots on target 0.15, passing 0.10, discipline 0.10). The coverage share c_i, the part of the position's weights the data covers, pulls the rest toward 50, and the league enters as its square root, so the gap between leagues is smaller here than in P.

$$\mathbf{R}_i = \left[\, c_i \cdot \frac{\Sigma_k\, w_{gk}\, \pi_{ik}}{\Sigma_{k\ \text{available}}\, w_{gk}} + (1 - c_i) \cdot 50 \,\right] \cdot \sqrt{\bar{L}_i}$$

Form, market value and youth (F 10%, M 5%, J 5%)

Form is his minute share in his last 12 league games (at least 3; games missed on national-team duty are excused). Market value counts from €25,000 up to €25 million on a log scale. Youth adds a little for players under 23 who already play, never instead of minutes.

$$\mathbf{F}_i = 100 \cdot \frac{\text{minutes in last} \le 12 \text{ league games}}{90 \cdot \text{games}} \cdot \bar{L}_i$$

$$\mathbf{M}_i = 100 \cdot \text{clamp}(\, \tfrac{1}{3} \log_{10}(V_i \,/\, €25{,}000),\, 0,\, 1\,)$$

$$\mathbf{J}_i = 100 \cdot \text{clamp}(\, (23 - \text{age}_i) \,/\, 8,\, 0,\, 1\,) \cdot \text{level-weighted minutes share}_i$$

Who is ranked, how sure we are, and ties

A player is ranked only with at least 270 league minutes this season, in a league with a level, with club data from the last 45 days, and while he is not injured or out of season. A confidence score sits beside every number: 35% minutes (full at 1,350), 35% data coverage, 20% appearances (full at 15) and 10% source quality. Two players less than 1.5 points apart are a technical tie: the number does not separate them.

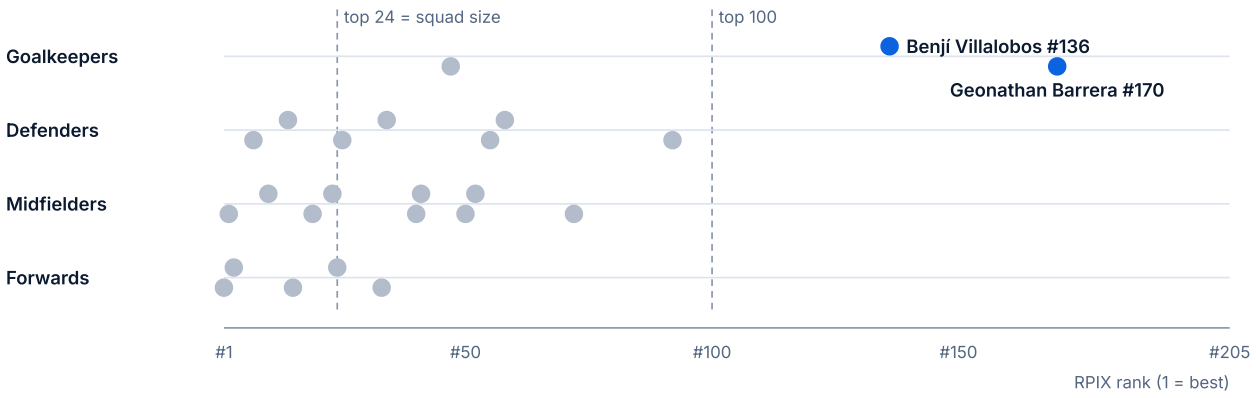
Worked example

Eric Calvillo, a midfielder at El Paso Locomotive in the USL Championship (level 0.70): P 57.4, R 50.2, F 57.3, M 33.3, J 0.0. RPIX = 0.35 × 57.4 + 0.45 × 50.2 + 0.10 × 57.3 + 0.05 × 33.3 + 0.05 × 0.0 = **50.1**, second of 205.

4. Results (data of 11 November 2026)

RPIX and the coach broadly agree on who the squad is, and differ most on goalkeepers.

22 of the 24 called players are in the RPIX top 100; the two outside are goalkeepers



RPIX rank of each player in El Salvador's November 2026 squad, out of 205 ranked, by position group. Source: rankings.futbolfutbol.icu, 11 November 2026.

Squad agreement. 10 of the 24 called players are in RPIX's top 24 and 17 in its top 50. The median called player played 51% of his club's league minutes, against 63% for RPIX's top 24, and 12 of the 24 played under half. The highest-ranked player left out of the original list, Eric Calvillo (#2), was later called up as an injury replacement. The two outside the top 100 are Benjí Villalobos (#136) and Geonathan Barrera (#170).

League adjustment. 192 of the 205 ranked players play in El Salvador's top flight, but the 13 who play abroad hold 9 of the top 10 places. RPIX and the raw share of minutes rank players similarly (Spearman 0.79, n = 205); league level and output reorder the rest.

Shrinkage. The average is worth 16 full matches for forward goals, 20 for midfielder goals and 17 for full-back assists, but 187 for forward assists and 1,321 for centre-back goals. A statistic with

little real spread between players barely moves the number.

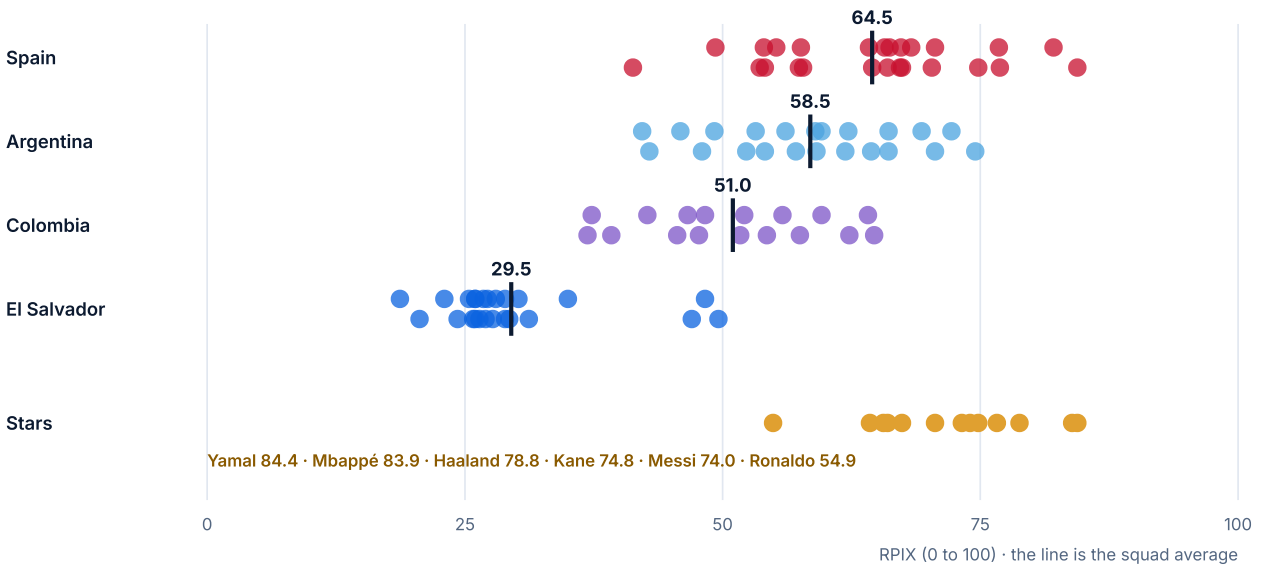
Stability. From 12 October to 5 November 2026, 211 ranked players gave 3,616 day-to-day pairs under one method version: 80% did not change, the mean change was 0.09 points, and 0.7% moved by 1.5 points (a tie) or more.

5. The same rule beyond El Salvador

RPIX is not built for one country. On 11 November 2026 we scored the latest squads of Spain (28 players), Argentina (28) and Colombia (26) and twelve of the world's best-known players with the same formula, in the same pool as El Salvador's players: 427 players in all.

SQUAD	PLAYERS RANKED	AVERAGE RPIX	MEDIAN	HIGHEST
Spain	25 of 28	**64.5**	66.0	Lamine Yamal 84.4
Argentina	22 of 28	**58.5**	59.0	Nico Paz 74.5
Colombia	17 of 26	**51.0**	51.7	Camilo Durán 64.7
El Salvador	24 of 24	**29.5**	27.1	Eric Calvillo 49.6

Spain 64.5, Argentina 58.5, Colombia 51.0, El Salvador 29.5: one formula, one scale



Each dot is a ranked player of the latest squad; the dark line is the squad average; gold dots are the stars. Players under 270 league minutes, injured or without a current league are left out, as on the live ranking.

The stars

PLAYER	CLUB (LEAGUE, LEVEL)	LEAGUE MINUTES	GOALS + ASSISTS	RPIX
Lamine Yamal	FC Barcelona (LaLiga 1.00)	995	10 + 8	**84.4**
Kylian Mbappé	Real Madrid (LaLiga 1.00)	1,075	13 + 2	**83.9**
Erling Haaland	Manchester City (Premier League 1.00)	890	9 + 0	**78.8**
Jude Bellingham	Real Madrid (LaLiga 1.00)	958	4 + 4	**76.6**
Harry Kane	Bayern Munich (Bundesliga 1.00)	715	4 + 7	**74.8**
Lionel Messi	Inter Miami CF (MLS 0.85)	2,664	26 + 14	**74.0**
Thibaut Courtois	Real Madrid (LaLiga 1.00)	990	0 + 0	**73.2**
Gianluigi Donnarumma	Manchester City (Premier League 1.00)	900	0 + 0	**70.6**
Virgil van Dijk	Liverpool FC (Premier League 1.00)	900	0 + 0	**67.4**
Pedri	FC Barcelona (LaLiga 1.00)	845	1 + 2	**66.0**
Vitinha	Paris Saint-Germain (Ligue 1 1.00)	676	1 + 1	**65.6**
Achraf Hakimi	Paris Saint-Germain (Ligue 1 1.00)	569	3 + 2	**64.3**
Cristiano Ronaldo	Al-Nassr FC (Saudi Pro League 0.70)	783	8 + 0	**54.9**

What the examples show. Lamine Yamal (84.4) and Kylian Mbappé (83.9) lead because they play almost every minute in a level-1.00 league and produce. Lionel Messi, at 39, scored 26 and assisted 14 in MLS; with MLS at 0.85 he reaches 74, level with Harry Kane's 74.8 in the Bundesliga. Cristiano Ronaldo's 8 goals for Al-Nassr come in a 0.70 league, so he sits at 54.9: the league matters as much for a star as for a Salvadoran.

Market value: why it counts, and why only 5%

A club that pays a large fee has every reason to play the player: the owner and the general manager want a return, and the price tells the coach who comes first. That is why market value is part of RPIX. But price alone does not guarantee minutes. Among these 93 international players, market value and the share of league minutes played were barely related (Spearman 0.17). The four players valued at €160 million or more played 89 to 100% of their clubs' minutes, but Julián Álvarez (€110 million) played 39% (RPIX 48) and William Saliba (€100 million) none. So minutes weigh 35% and market value 5%: the money explains why a player gets his chance; the minutes show whether he took it.

El Salvador in context

El Salvador's two highest, Eric Calvillo (49.6) and Brayan Gil (48.3), would rank 18th and 19th among Argentina's ranked players and about 10th in Colombia's. Adding 94 players from these squads and the stars to the pool moved El Salvador's numbers by 0.56 points on average (204 players): each player is compared with his position group, and the league level does the rest.

Some league levels are used only in this comparison and are not on the live ranking: Argentina's Liga Profesional 0.80, Brazil's Série A, Portugal, Turkey, Greece and Scotland 0.85, Ecuador 0.75, LaLiga 2 and the Championship 0.70. Players who did not play enough league minutes this season (nine of Colombia's 26, for example) are not ranked, as on the live site. Goalkeepers who face many shots can score high because saves count, a known limit of the current method.

6. What comes next: validation

Agreement with a coach is not proof of quality. The next version of this paper will report a point-in-time back-test, with every input already recorded:

1. **Point-in-time RPIX:** each player's number as of a past date, from games played before it only.
2. **Targets:** the next national-team squad, next season's minutes and league level, and market-value change over six months.
3. **Baselines:** minutes share alone, minutes share times league level, and market value alone, with bootstrap 95% intervals.
4. **League levels from team strength:** levels derived from published, independent ratings of team strength across leagues, instead of set by hand.
5. **A range per player:** the uncertainty from the empirical Bayes step shown beside each number.

7. Limitations and disclosure

- **League levels** are set by hand from documented sources, one level per league, and are provisional until the comparison above.
- **Weights** (0.35, 0.45, 0.10, 0.05, 0.05) are chosen by design, not fitted to data.
- **Data** outside the big leagues is thin: performance rests mostly on goals, assists and cards, plus shots, tackles and passes where a feed covers the league.
- **History** is short: daily scores exist since 12 October 2026, and the method moved from version 2.6.1 to 2.7.0 on 29 October 2026.
- **Disclosure:** the author's son, a professional defender, is among the ranked players. His rating follows the same rules as everyone's, and no league level is ever changed for a single player.

8. Conclusion

A small nation's players can be put on one public scale with only minutes, basic statistics and a league level, as long as small samples are shrunk and missing data counts as average. On El Salvador's November 2026 squad, RPIX agrees with the coach on 22 of 24 players being in its top

100 and differs most on goalkeepers and on how much a player plays for his club. The same formula ranks Spain, Argentina, Colombia and the world's stars on the same scale; the back-test will show whether it predicts, not only agrees.

The full method, today's ranking and every player's breakdown: rankings.futbolfutbol.icu/sv/explicado.

Mario Casamalhuapa

Founder, futbolfutbol · 11 November 2026

futbolfutbol.icu